LBT-V701/V701GD/V701GDG

SERVICE MANUAL

 LBT-V701/701CD/701CDG are composed of following models.

As for the service manual, it is issued for each component model, then, please refer to it.

AEP Model
E Model
LBT-V701
UK Model
LBT-V701CDG

COMPONENT MODEL NAME FOR LBT-V701/V701CD/ V701CDG

	V701 (AEP, WG, IT)	V701 (E, SaudiArabia)	V701CD	V701CDG		
AMPLIFIER	TA-V701	TA-V701	TA-V701	TA-V701		
CASSETTE DECK	TC-V701		TC-V701	TC-V701		
TUNER	ST-V701L	ST-V701S	ST-V701L	ST-V701L		
GRAPHIC EQUALIZER		SEQ-V901		SEQ-V901		
CD PLAYER			CDP-M77	CDP-M77		
TURNTABLE SYSTEM		·	PS-V701P	PS-V701 P		

SPECIFICATIONS

General

Power requirements LBT-V701 (AEP, WG, IT model): 220V AC,

50Hz

LBT-V701 (E, SaudiArabia model): 120,

220 or 240V.

adjustable. 50/60Hz

LBT-V701CD/V701CDG: 240V. 50/60Hz

Power consumption LBT-V701 (AEP, WG, IT model): 110W

LBT-V701 (E, SaudiArabia model): 140W

LBT-V701CD/V701CDG: 240W

AC outlet LBT-V701 (AEP, WG, IT model): 2 unswit-

ched, total 100W max.

LBT-V701 (E, SaudiArabia model): 2 swit-

ched, total 100W max.

LBT-V701CD/V701CDG: 1 unswitched,

100W max.

PARTS LIST

 Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

Part No.	Description
1-465-163-11 1-465-164-11	(E)REMOTE COMMANDER (RM-S720E) (AEP,IT,WG)REMOTE COMMANDER (RM-S720)
1-501-369-11 1-501-374-01 1-558-543-00	(AEP,IT,WG,UK)ANTENNA (AEP,IT,E,UK)ANTENNA, LOOP (E,UK)CORD, CONNECTION
1-559-552-41 1-574-803-11	CORD (WITH CONNECTOR) 5P-11P-11P CORD (WITH CONNECTOR) 11P-15P-15P
*3-570-115-01 3-701-806-00	CUSHION (for TC) (UK)ADAPTOR, 45, (E)
3-750-266-11 3-750-266-41 3-750-267-11 3-786-618-11	(AEP,E.UK)MANUAL, INSTRUCTION (LBT-Y701) (AEP,IT,WG)MANUAL, INSTRUCTION (LBT-Y701) (E.UK:Y701CDG)MANUAL, INSTRUCTION (SEQ-Y901) (UK)MANUAL, INSTRUCTION (CDP-M77)
4-914-075-01 4-920-940-01 *4-922-998-01	CUSHION (SP) SHEET (A), PROTECTION (for TA,TC) (E,UK)CUSHION (for SEQ,CDP)
*4-928-405-01 *4-928-406-01	CUSHION (for TA) CUSHION (for TC)
*4-93 0-82 8-01 *4-93 0-82 9-01 *4-93 0-83 0-01 *4-93 0-83 4-01	(UK:Y701CD)INDIVIDUAL CARTON (E)INDIVIDUAL CARTON (AEP,IT,WG)INDIVIDUAL CARTON (UK:Y701CDG)INDIVIDUAL CARTON

• WG: West Germany

IT : Italian

COMPACT STEREO SYSTEM SONY

English 89D0454-1 Printed in Japan ©1989.4

Sony Corporation Audio Group



9-953-787-11

Published by A/V Engineering Service Dept.

TA-V701

SERVICE MANUAL

AEP Model UK Model E Model

This set is the stereo amplifier section in LBT-V701/V701CD/V701CDG.



SPECIFICATIONS

Amplifier (TA-V701)

Continuous RMS power output (AEP, UK, West Germany, Italian model)

60 W + 60 W (at 1 kHz, 5% T.H.D.)

Peak music power output: 600 W (E, Saudi Arabia model)

Inputs

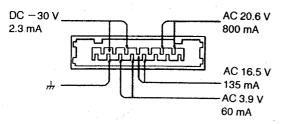
	Jack type	Sensitivity	Impedance
PHONO IN	Phono	3 mV	50 kohms
VIDEO/DAT IN	Phono	200 mV	50 kohms
CD IN	Phono	200 mV	50 kohms
TAPE IN	Phone	200 mV	50 kohms
MIC	Phone	1 mV	10 kohms

Outputs

	Jack type	Voltage	Impedance		
VIDEO/DAT	Phono	200 mV	470 ohms		
SURROUND SPEAKER	Phono	Accepts speakers of 6 ohms to 16 ohms.			
HEADPHONES	Stereo phone	Accepts he ohms or mo	eadphones of 8 ore.		

SYSTEM CONTROL connector

SYSTEM CONTROL 2: 15-pin



General

Power requirement (AEP, West Germany, Italian model):

220V AC. 50Hz

(E, Saudi Arabia model): 120, 220 or

240V. adjustable. 50/60Hz (UK model): 240V. 50/60Hz

Power consumption (AEP, West Germany, Italian model):

110W

(E, Saudi Arabia model): 140W

(UK mode): 240W

AC outlet (AEP, West Germany, Italian model):

2 unswitched, total 100W max. (E, Saudi Arabia model): 2 switched,

L, Saudi Alabia Illouei). Z SV

total 100W max.

(UK model): 1 unswitched, 100W

max.

Accessories supplied

Remote commander (1)

Batteries Sony SUM-3 (NS) (2)

AM loop antenna (1)

FM wire antenna (Except for West Germany model) (1)

45-rpm adaptor (1)

STEREO AMPLIFIER SONY.

- Specification Label -

SONY® MODEL NO. TA-V701

INTEGRATED STEREO AMPLIFIER

SERIAL NO. MADE IN JAPAN

West Germany Model:

SONY

MODEL NO. LBT-V701

COMPACT HI-FI STEREO SYSTEM

TA-V701: INTEGRATED STEREO AMPLIFIER

AC: 220V~50/60Hz 110W

ST-V701L: FM STEREO/FM-AM TUNER

TC-V701 : STEREO CASSETTE DECK

AEP Model: AC: 220V~50/60Hz

Italian Model: AC: 220V~50/60Hz 110W

UK Model: AC: 220V~50/60Hz

E, Saudi Arabia Model: AC: 120/220/240V~50/60Hz 140W

SERVICING NOTES

On operating voltage

Before operating the unit, check that the operating voltage of your unit is identical with the voltage of your local power supply.

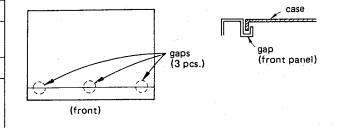
Where purchased	Operating voltage
AEP, West Germany Italian Model	220 V AC
UK Model	240 V AC
E, Saudi Arabia Model	120, 220 or 240 V AC, adjustable with the voltage selector on the rear. VOLTAGE SELECTOR 220V 240V 120V

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK A OR DOTTED LINE WITH MARK A ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

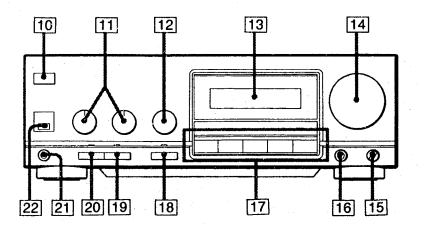
On removing the case

Remove the case by lifting it up straightly above. Unbalanced lifting damages gaps of the front panel assembly for supporiting the case.



SECTION 1 GENERAL

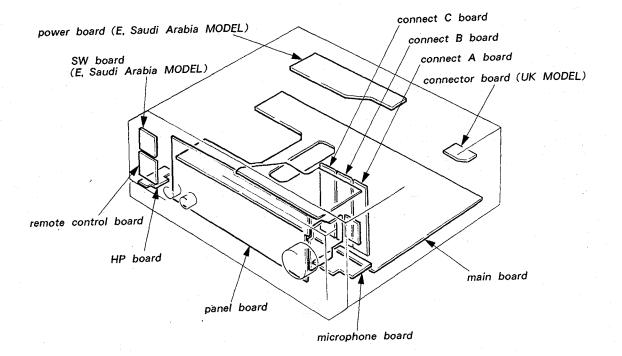
PARTS IDENTIFICATION



- 10 POWER switch (AEP, UK, West Germany, Italian model) SYSTEM POWER switch (E, Saudi Arabia model)
- 11 Tone controls (BASS and TREBLE)
- 12 BALANCE control
- 13 Function display
- 14 VOLUME control
- 15 MIC (microphone) LEVEL control
- 16 MIC (microphone) jack
- 17 FUNCTION CONTROL buttons
- 18 EQ REC (equalizer recording) switch
- 19 SURROUND button
- 20 DBFB (Dynamic Bass FeedBack) button (AEP, UK, West Germany, Italian model) SAT (Super Acoustic Turbo) button (E, Saudi Arabia model)
- 21 HEADPHONES jack
- 22 Remote control sensor

SECTION 2 DIAGRAMS

2-1. PC BOARD LOCATION



2 - 2. SEMICONDUCTOR LEAD LAYOUTS

GP1U52XB













LC7818





M5F7812



M50721-127P



M5218L







L78MR05

M5F7810







STK4152 II STK4192 II













DTA124ES



2SA1317





2SC1841



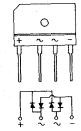
2SK246BL



HZS6B1L UZL-27M



RBV-602-11



RD5.1FB2 US1060M 10E2N



2SB1187F



2SC3622AL



2 - 3. PRINTED WIRING BOARS

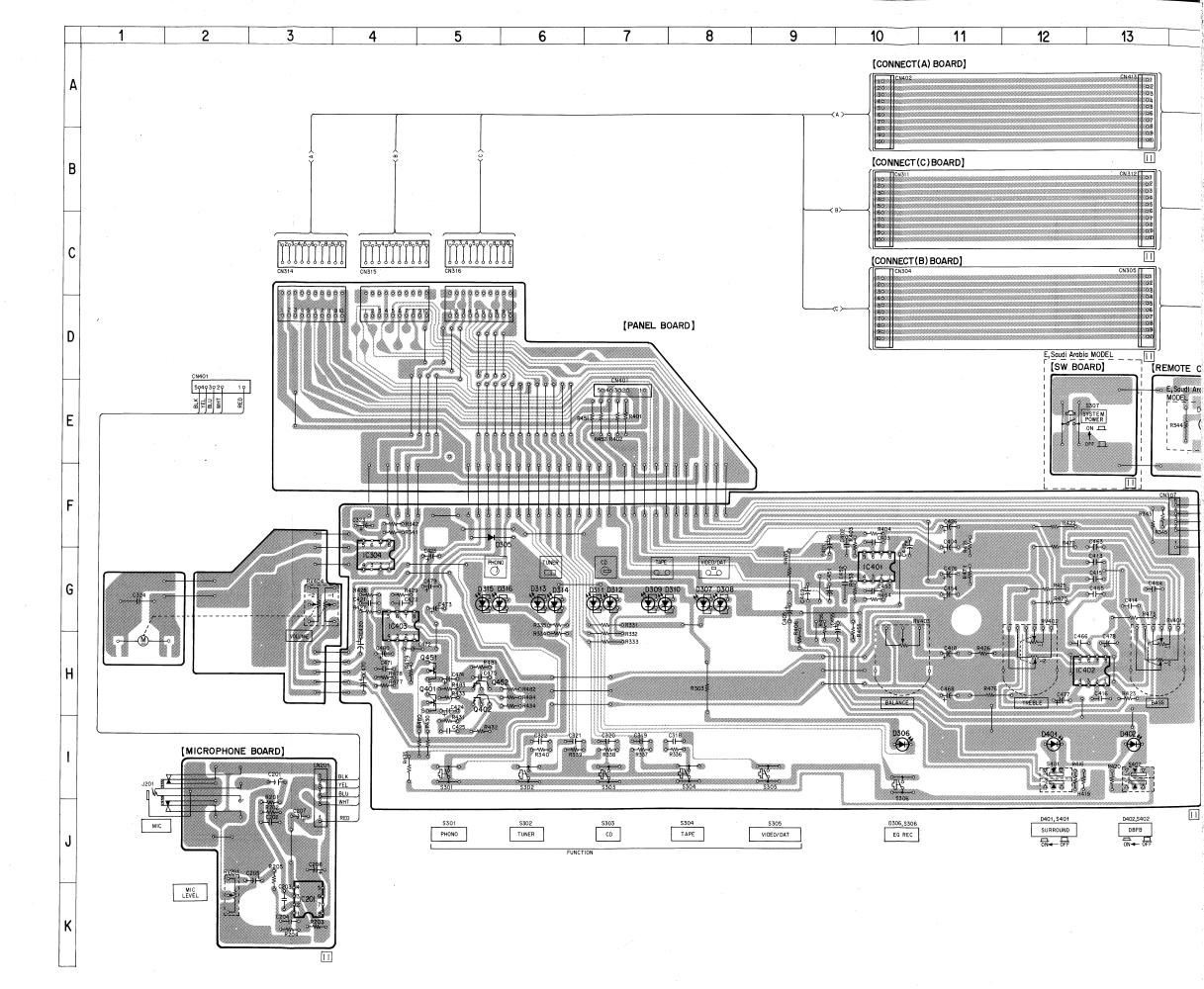
• See page 5 for Semiconductor Lead Layouts.

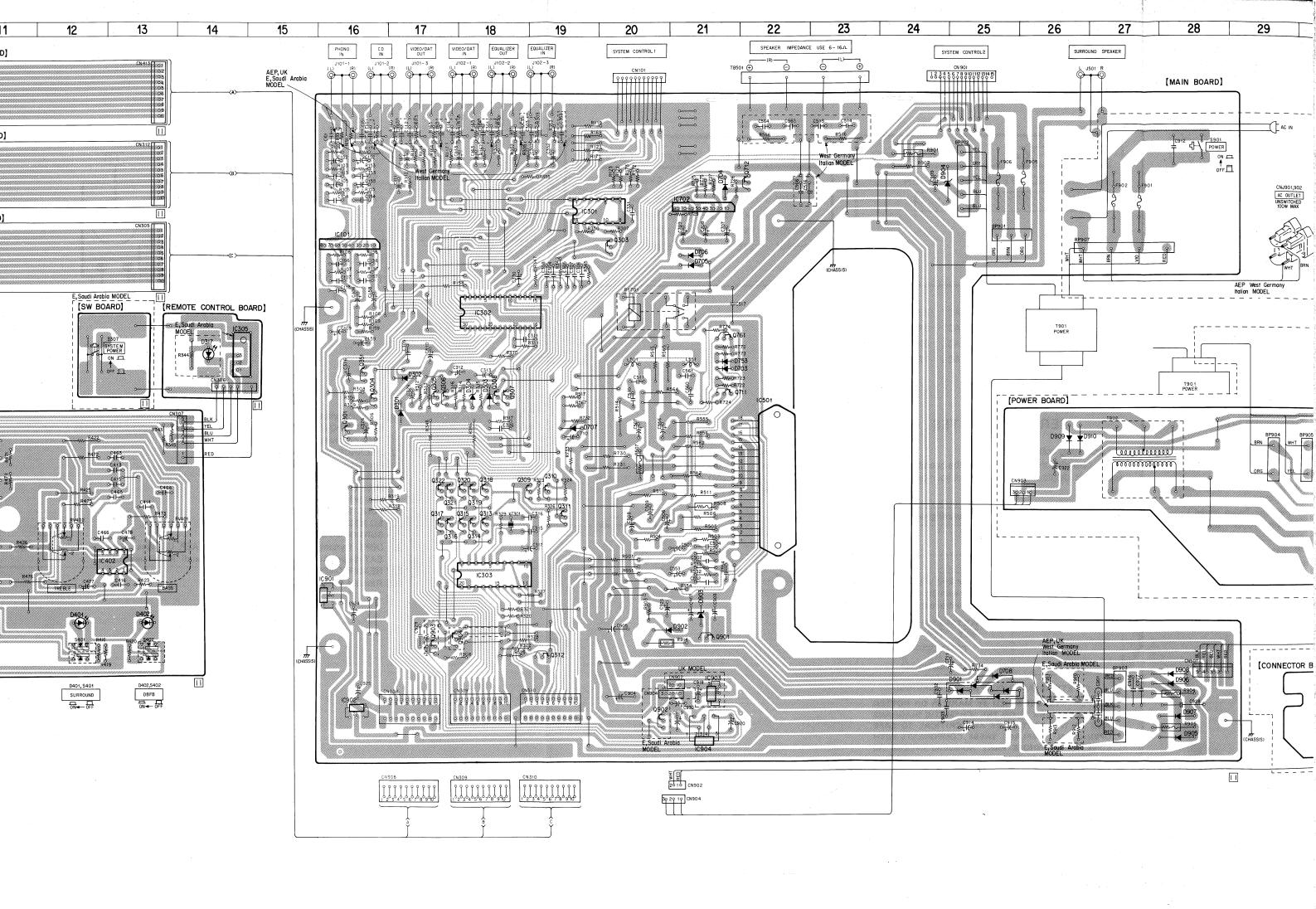
Semiconductor Location

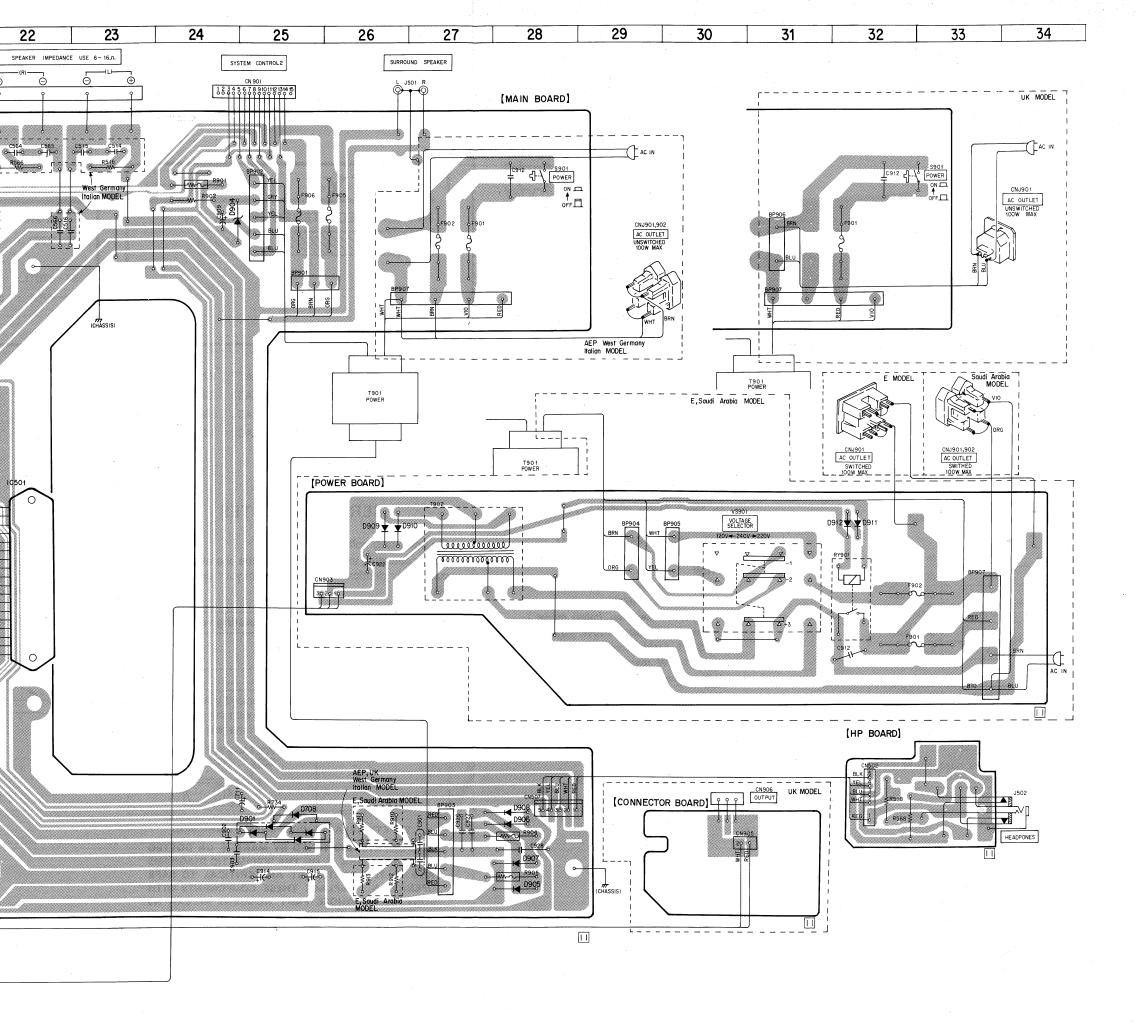
Ref. No.	Location	Ref. No,	Location
D301 D302 D303 D304 D305 D306 D307 D308 D309 D310 D311	F-17 E-17 F-18 F-18 F-5 I-10 G-8 G-8 G-7 G-8 G-7	IC305 IC401 IC402 IC403 IC501 IC702 IC901 IC902 IC903 IC904	E-14 G-10 H-13 G-4 G-22 C-21 H-16 J-16 J-21 J-21
D312 D313 D314 D315 D316 D317 D401 D402 D703 D704 D705 D706 D707 D708 D753 D901 D902 D903 D904 D905 D906 D907 D908 D909 D910 D911 D912 IC101 IC201 IC301 IC302 IC303 IC304	G-7 G-6 G-6 G-14 I-13 E-21 I-25 I-25 I-27 I-27 I-27 I-28 I-28 I-28 I-28 I-28 I-28 I-28 I-3 I-3 I-3 I-3 I-3 I-3 I-3 I-3 I-3 I-3	Q301 Q303 Q304 Q305 Q306 Q307 Q308 Q309 Q310 Q311 Q312 Q313 Q314 Q315 Q316 Q317 Q318 Q319 Q320 Q321 Q322 Q351 Q401 Q402 Q451 Q402 Q451 Q402 Q451 Q402 Q451 Q402 Q451 Q402 Q401 Q401 Q401 Q401 Q401 Q401 Q401 Q401	F-16 C-20 F-17 F-17 F-18 G-19 G-18 G-18 G-18 G-18 G-17 G-18 G-17 G-18 H-5 H-5 H-5 F-21 J-20 I-17 I-17

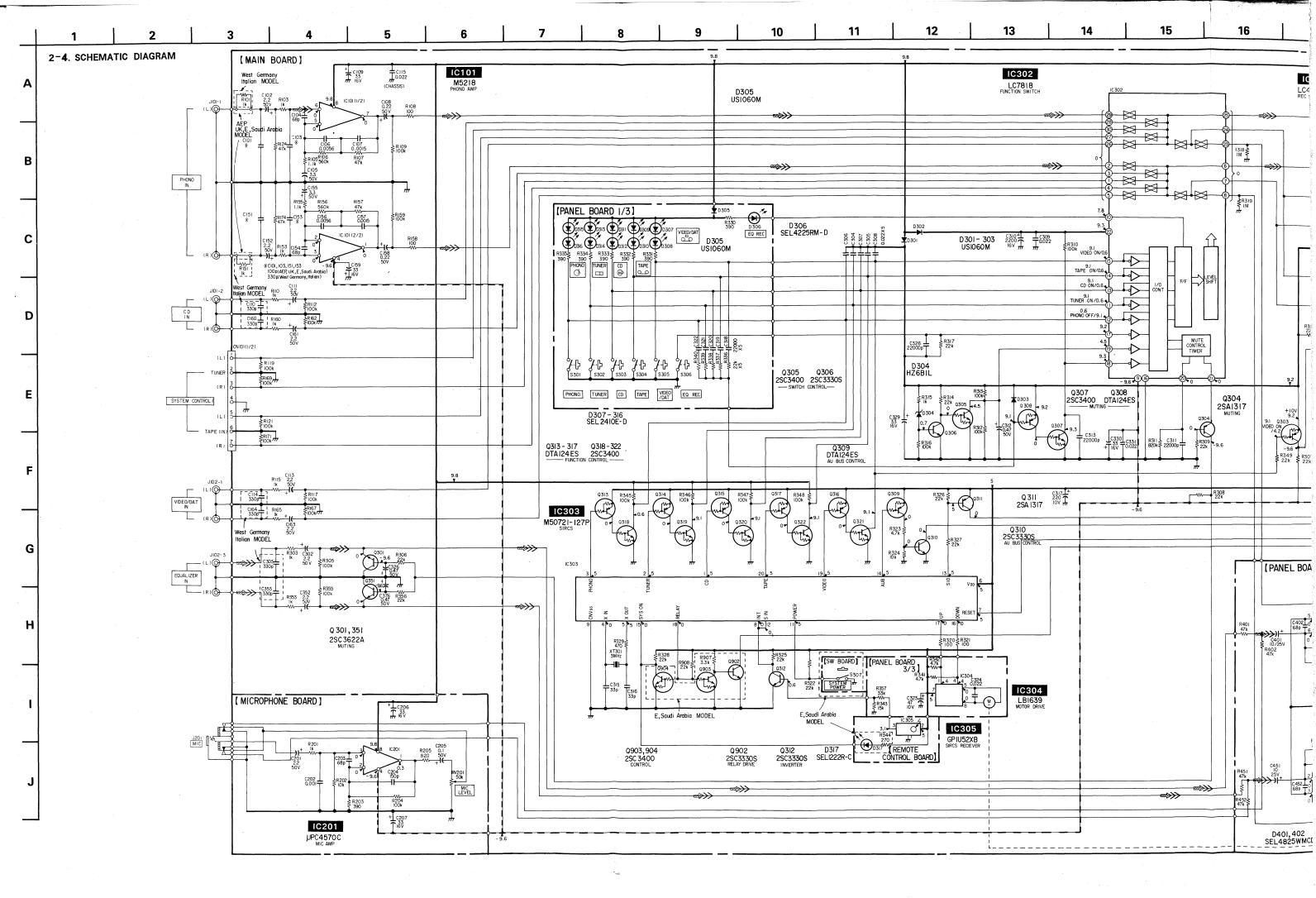
Note

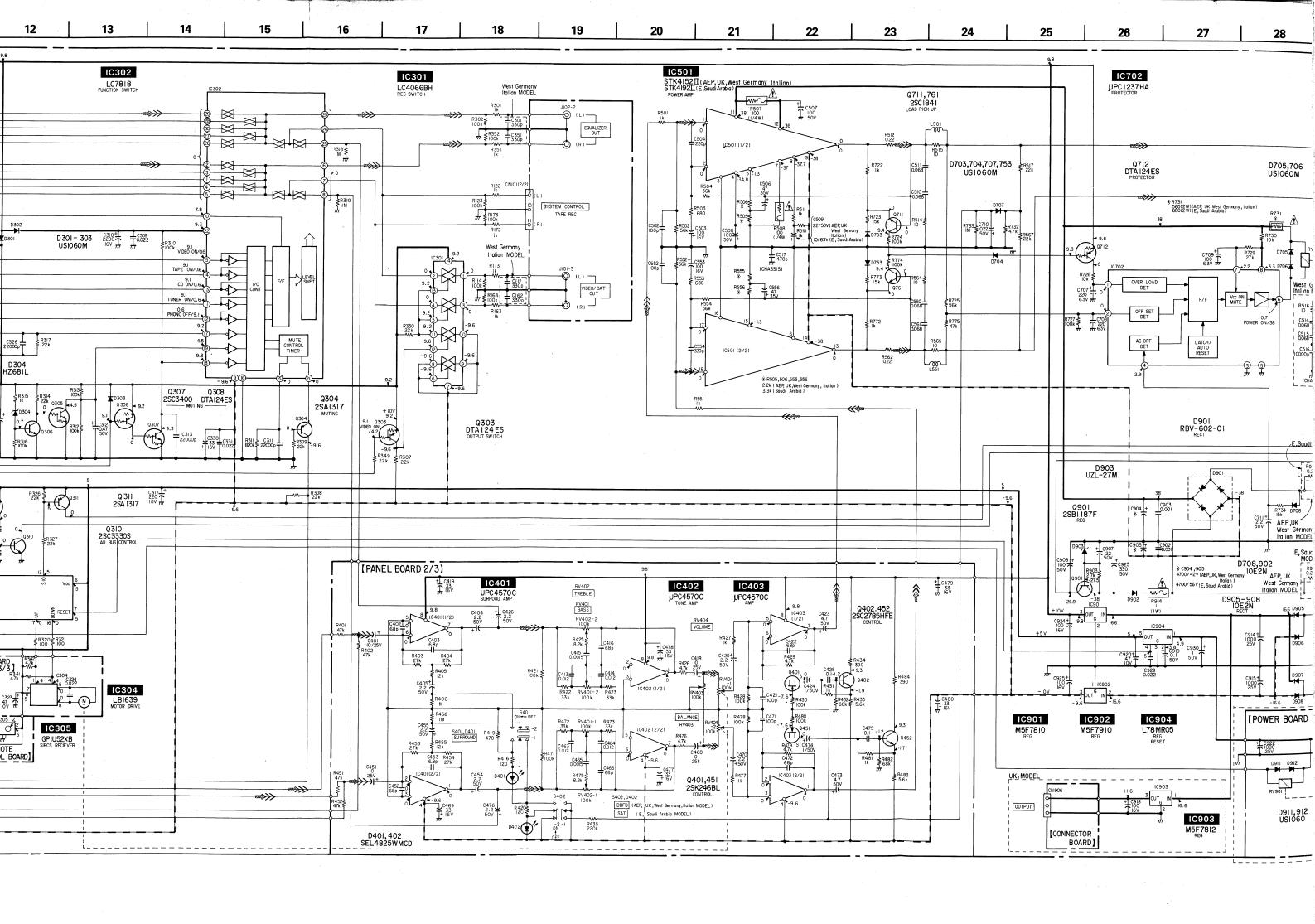
• o : parts extracted from the component side.











D909,910 IOE2N

* NOT REPLACELE: BUILT IN TRANSFORMER

M5F7812

OUTPUT

[CONNECTOR BOARD]

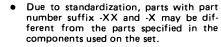
SECTION 3 EXPLODED VIEWS

NOTE:

No.

5

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "★" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

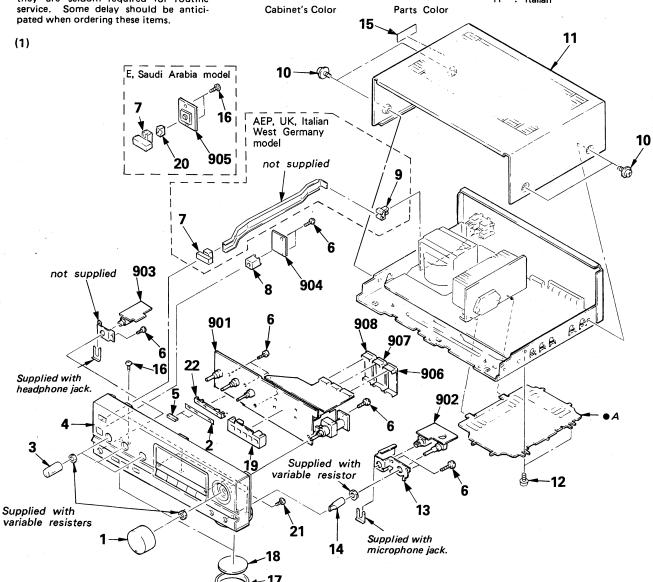


• Color Indication of Appearance Parts Example: (RED) ... KNOB, BALANCE (WHITE) mark A or dotted line with mark
are critical for safety.
Replace only with part number specified.

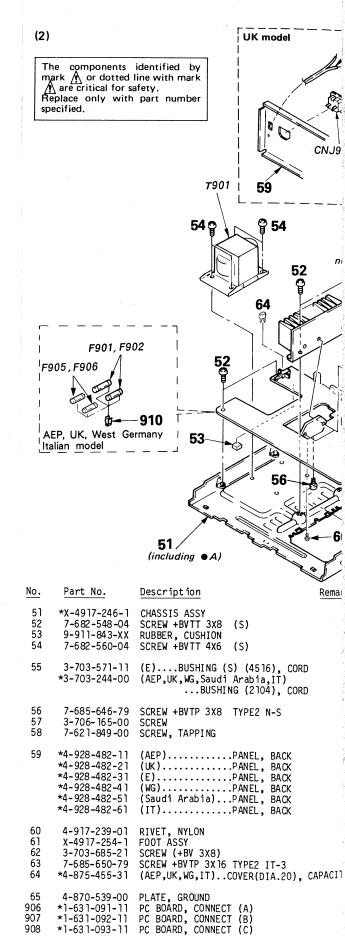
The components identified by

· WG: West Germany

IT : Italian



Part No. Description Remarks No. Part No. Description Remarks 4-925-121-42 KNOB (V2) 13 *4-928-413-01 BRACKET (MIC) *4-928-410-01 PLATE, LIGHT INTERCEPTION 4-921-921-01 KNOB (M) *3-703-079-21 (UK)...LABEL CAUTION (BACK) 7-685-646-79 SCREW +BVTP 3X8 TYPE2 N-S 4-925-188-01 KNOB (TONE) 15 X-4917-267-1 (AEP, UK, WG, IT).....PANEL ASSY, FRONT X-4917-252-1 PLATE (LEG) ASSY, ORNAMENTAL X-4917-268-1 (E, Saudi Arebia)...PANEL ASSY, FRONT 4-928-401-01 FELT *4-928-496-01 HOLDER (F), LED *4-881-725-00 (E,Saudi Arebia)...RING (TACT), FLEXIBLE 7-685-134-19 SCREW +BTP 2.6X8 TYPE2 N-S 4-928-490-01 BUTTON 19 4-928-635-01 SCREW, +BV (2.6X8) TAPPING 4-921-919-01 (AEP,UK,WG,IT)....BUTTON (POWER) 4-921-919-11 (E,Saudi Arebia)...BUTTON (POWER) *4-925-193-01 HOLDER (D), LED *A-4333-217-A MOUNTED PCB, PANEL *1-631-084-11 PC BOARD, MICROPHONE *4-925-182-01 (E,Saudi Arebia)...HOLDER (W), LED 4-866-342-00 (AEP,UK,WG,IT)...JOINT (B), KNOB 3-704-366-01 SCREW (CASE) (M3X8) 4-919-378-31 CASE *1-631-090-11 PC BOARD, HP *1-631-085-11 PC BOARD, REMOTE CONTROL *1-631-086-11 (E,Saudi Arebia)...PC BOARD, SW 7-682-548-04 SCREW +BVTP 3X8 (S) **—17**—

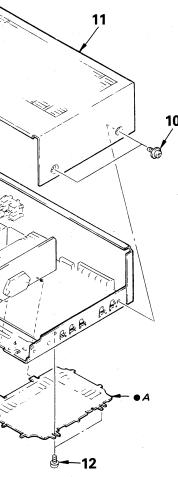


The components identified by mark or dotted line with mark are critical for safety.

Replace only with part number specified.

• WG : West Germany

IT : Italian



Remarks

ACKET (MIC)

DB (M)

()...LABEL CAUTION (BACK)

REW +BVTP 3X8 TYPE2 N-S

ATE (LEG) ASSY, ORNAMENTAL

LT

_DER (F), LED

_Saudi Arebia)...RING (TACT), FLEXIBLE

REW +BTP 2.6X8 TYPE2 N-S

_DER (D), LED

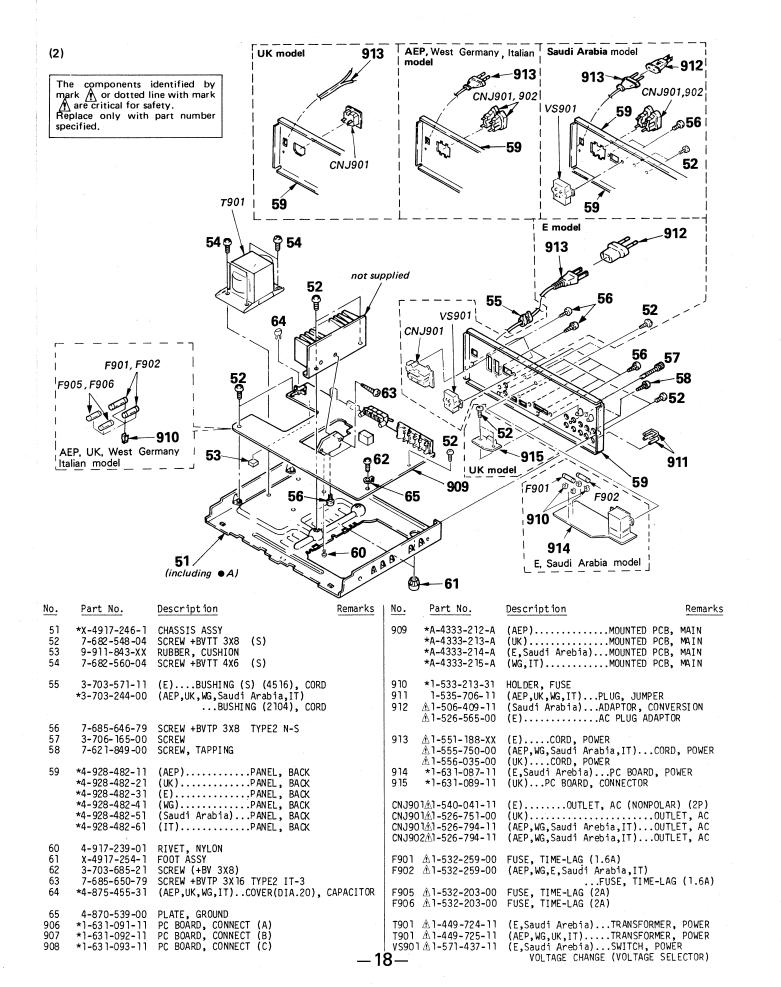
JINTED PCB, PANEL

BOARD, MICROPHONE

BOARD, HP

BOARD, REMOTE CONTROL

,Saudi Arebia)...PC BOARD, SW



SECTION 4 ELECTRICAL PARTS LIST

OTF.

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS: MF: μF, PF: μμF.

RESISTORS

All resistors are in ohms.F: nonflammable

COILS

MMH: mH, UH: μH

SEMICONDUCTORS In each case, U: μ, for example: UA...: μA..., UPA...: μPA..., UPC...: μPC, UPD...: μPD...

The components is mark \(\bigai \) or dotted li \(\bigai \) are critical for sat Replace only with specified.

• WG : West German

Ref.No.	Part No.	Description				Ref.No.	Part No.	Description	<u>on</u>
901 902 903	*A-4333-217-A *1-631-084-11 *1-631-090-11	MOUNTED PCB, PA PC BOARD, MICRO PC BOARD, HP				C110 C111 C112	1-162-288-31 1-124-257-00 1-162-288-31	ELECT	CERAMIC 33(2.2MF CERAMIC 33(
904 905 906	*1-631-085-11 *1-631-086-11 *1-631-091-11	PC BOARD, REMOT (E,Saudi Arebia PC BOARD, CONNE	a)PC BO	ARD, SW	4	C113 C114 C115	1-124-257-00 1-162-288-31 1-161-494-00	ELECT (WG,IT) CERAMIC	2.2MF CERAMIC 330 0.022MF
907 908	*1-631-092-11 *1-631-093-11	PC BOARD, CONNE PC BOARD, CONNE				C151	1-162-282-31		Saudi Arab CERAMIC 10
					****	C151	1-162-288-31	(WG,IT)	CERAMIC 330
909	*A-4333-212-A *A-4333-213-A *A-4333-214-A	(AEP) (UK) (E,Saudi Arebia	TNUOM(E	ED PCB, ED PCB,	MAIN MAIN	C152	1-124-257-00		2.2MF
	*A-4333-215-A	(WG,IT)	MOUNT	ED PCB,	, MAIN	C153	1-162-282-31		Saudi Arab .CERAMIC 10⊍
910 911	*1-533-213-31 1-535-706-11	HOLDER, FUSE (AEP,UK,WG,IT).	PLUG, J	UMPER		C 153	1-162-288-31	(WG,IT)	CERAMIC 330
912	<u></u> 1-506-409-11	(Caudi Amabia)	ADARTOR	CONVE	TOCTON	C154 C155	1-162-219-31 1-123-382-00	CERAMIC ELECT	68PF 3.3MF
	<u>M</u> 1-526-565-00	(Saudi Arabia). (E)				C156	1-130-480-00	MYLAR	0.0056M
913	<u></u> 1-551-188-xx	(E)CORD, P	POWER			C157	1-130-473-00	MYLAR	0.0015M
	<u>↑</u> 1-555-750-00	(AEP, WG, Saudi A	Arabia,IT)	CORD,	, POWER	C158	1-124-464-11	ELECT	0.22MF
	∆1-556-035-00	(UK)CORD, P	POWER			C159	1-124-963-11	ELECT	33MF
914	*1-631-087-11	(E,Saudi Arebia			OWER	C160	1-162-288-31		CERAMIC 33
915	*1-631-089-11	(UK)PC BOARD	o, CONNECT	OR		C161 C162	1-124-257-00 1-162-288-31	ELECT (WG,IT)	2.2MF CERAMIC 33
	*1-535-116-00 *1-535-119-00	TERMINAL				C163	1-124-257-00	ELECT	
	*1-535-118-00 *1-535-118-00	TERMINAL TERMINAL				C164	1-162-288-31		2.2MF CERAMIC 33
						C201	1-124-925-11	ELECT	2.2MF
	*1-535-135-00	(E,Saudi Arebia BASE POS	ST 14MM (10	TIG MMC	ГСН) 2Р	C202	1-162-294-31	CERAMIC	0.001MF
BP905	*1-535-135-00	(E,Saudi Arebia		NMM DIT	ICH) SD	C203 C204	1-162-219-31 1-162-284-31	CERAMIC CERAMIC	68PF 150PF
BP906	*1-535-139-00	(UK)BASE POS							-
BP 90 7	*1-535-140-00	(E)BASE PO	ST 19MM (10MM PT	TCH) 3P	C205 C206	1-124-463-00 1-124-963-11	ELECT ELECT	0.1MF 33MF
	*1-535-141-00	(AEP,UK,WG,Saud	di Arebia,	IT)		C207	1-124-963-11	ELECT	33MF
		BASE PO	JST 19MM (IUMM PI	IICH) 4P	C301	1-162-288-31		.CERAMIC 33
C101	1-162-282-31	(AEP,UK,E,Saudi		10%	FOV	C302 C303	1-124-257-00 1-162-288-31	ELECT	2.2MF .CERAMIC 33
C101	1-162-288-31	(WG,IT)CERAM	MIC 100PF MIC 330PF	10% 10%	50V 50V	C304	1-161-494-00	CERAMIC	0.022MF
C102	1-124-257-00	ELECT 2.	.2MF	20%	50V	C305	1-161-494-00	CERAMIC	0.022MF
C103	1-162-282-31	(AEP,UK,E,Saudi	i Arabia)			C306	1-161-494-00	CERAMIC	0.022MF
CIU3			AIC TOOPE	10%	50V	C307 C308	1-161-494-00 1-161-494-00	CERAMIC	0.022MF 0.022MF
				10%	50 V	C309	1-161-494-00	CERAMIC	0.022MF
C104 C105	1-162-219-31 1-123-382-00		3PF .3MF	5% 20%	50V 50V	C3 10	1-124-556-11	ELECT	2200MF
C106	1-130-480-00		.0056MF	20% 5%	50V 50V	C3 11	1-161-494-00	CERAMIC	0.022MF
C107	1-130-473-00	MYLAR 0.	.0015MF	5%	50V	C312	1-124-902-00	ELECT	0.47MF
C108	1-124-464-11	ELECT 0.	22MF	20%	50V				
C109	1-124-963-11	ELECT 33	BMF	20%	16V				

SECTION 4 ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS: MF: μF, PF: μμF.

RESISTORS

 All resistors are in ohms. • F: nonflammable

COILS

• MMH: mH, UH: μH

SEMICONDUCTORS
In each case, U: µ, for example:
UA...: µA..., UPA...: µPA...,
UPC...: µPC, UPD...: µPD...

The components identified by mark \(\frac{\Lambda}{\Lambda} \) or dotted line with mark \(\frac{\Lambda}{\Lambda} \) are critical for safety.

Replace only with part number specified.

· WG: West Germany

IT : Italian

Ref.No	Part No.	Description		Ref.No.	Part No.	Description			
901 902 903	*A-4333-217-A *1-631-084-11 *1-631-090-11	MOUNTED PCB, PANEL PC BOARD, MICROPHONE PC BOARD, HP	,	C110 C111 C112	1-162-288-31 1-124-257-00 1-162-288-31	(WG,IT)CERAMIC 330PF ELECT 2.2MF (WG,IT)CERAMIC 330PF	10% 20% 10%	50V 50V 50V	
904 905 906	*1-631-085-11 *1-631-086-11 *1-631-091-11	PC BOARD, REMOTE CONTROL (E,Saudi Arebia)PC BOARD, SW PC BOARD, CONNECT (A)		C113 C114 C115	1-124-257-00 1-162-288-31 1-161-494-00	ELECT 2.2MF (WG,IT)CERAMIC 330PF CERAMIC 0.022MF	20% 10%	50V 50V 25V	
907 908		PC BOARD, CONNECT (B) PC BOARD, CONNECT (C)		C151	1-162-282-31	(AEP,UK,E,Saudi Arabia)CERAMIC 100PF	10%	50 V	
909	*A-4333-212-A	(AEP)MOUNTED PCB, M	IAIN	C151	1-162-288-31	(WG,IT)CERAMIC 330PF	10%	50 V	
	*A-4333-213-A *A-4333-214-A	(UK)MOUNTED PCB, M (E,Saudi Arebia)MOUNTED PCB, M	MIN	C152	1-124-257-00		20%	50 V	
	*A-4333-215-A	(WG,IT)MOUNTED PCB, M	MIN	C153	1-162-282-31	(AEP,UK,E,Saudi Arabia) CERAMIC 100PF	10%	50V	
910 911	*1-533-213-31 1-535-706-11	HOLDER, FUSE (AEP,UK,WG,IT)PLUG, JUMPER		C 153	1-162-288-31	(WG,IT)CERAMIC 330PF	10%	50 V	
912		(Saudi Arabia)ADAPTOR, CONVERS	SION	C154 C155 C156	1-162-219-31 1-123-382-00 1-130-480-00	CERAMIC 68PF ELECT 3.3MF MYLAR 0.0056MF	5% 20% 5%	50V 50V 50V	
913	<u>↑</u> 1-551-188-XX <u>↑</u> 1-555-750-00 <u>↑</u> 1-556-035-00	(E)CORD, POWER (AEP,WG,Saudi Arabia,IT)CORD, P (UK)CORD, POWER	OWER	C157 C158 C159	1-130-473-00 1-124-464-11 1-124-963-11	MYLAR 0.0015MF ELECT 0.22MF ELECT 33MF	5% 20% 20%	50V 50V 16V	
91 <u>4</u> 915	*1-631-087-11 *1-631-089-11	(E,Saudi Arebia)PC BOARD, POWE (UK)PC BOARD, CONNECTOR	R	C160 C161 C162	1-162-288-31 1-124-257-00 1-162-288-31	(WG,IT)CERAMIC 330PF ELECT 2.2MF (WG,IT)CERAMIC 330PF	10% 20% 10%	50V 50V 50V	
BP902	*1-535-116-00 2 *1-535-118-00 3 *1-535-118-00	TERMINAL TERMINAL TERMINAL		C163 C164 C201	1-124-257-00 1-162-288-31 1-124-925-11	ELECT 2.2MF (WG,IT)CERAMIC 330PF ELECT 2.2MF	20% 10% 20%	50V 50V 50V	
BP904	*1-535-135-00	(E, Saudi Arebia)		C202	1-162-294-31	CERAMIC 0.001MF	10%	50V	
BP905	*1-535-135-00	BASE POST 14MM (10MM PITCH (E,Saudi Arebia)BASE POST 14MM (10MM PITCH		C202 C203 C204	1-162-219-31	CERAMIC 0.001MF CERAMIC 68PF CERAMIC 150PF	5% 10%	50V 50V	
BP906	*1-535-139-00	(UK)BASE POST 19MM (10MM PITCH) 2P						
	/ *1-535-140-00 / *1-535-141-00	(E)BASE POST 19MM (10MM PITCI (AEP,UK,WG,Saudi Arebia,IT) BASE POST 19MM (10MM PITCI		C205 C206 C207	1-124-463-00 1-124-963-11 1-124-963-11	ELECT 0.1MF ELECT 33MF ELECT 33MF	20% 20% 20%	50V 16V 16V	
C101	1-162-282-31			C301 C302	1-162-288-31	(WG,IT)CERAMIC 330PF ELECT 2.2MF	10% 20%	50V 50V	
C101	1-162-288-31		0V 00	C303	1-162-288-31	(WG,IT)CERAMIC 330PF	10%	50V	
C102	1-124-257-00	ELECT 2.2MF 20% 5	ov	©04 ©305 ©306	1-161-494-00 1-161-494-00 1-161-494-00	CERAMIC 0.022MF CERAMIC 0.022MF		25V 25V 25V	
C103	1-162-282-31					CERAMIC 0.022MF			
C103	1-162-288-31		00	C307 C308 C309	1-161-494-00 1-161-494-00 1-161-494-00	CERAMIC 0.022MF CERAMIC 0.022MF CERAMIC 0.022MF		25V 25V 25V	
C104 C105 C106	1-162-219-31 1-123-382-00 1-130-480-00	ELECT 3.3MF 20% 5	0V 0V 0V	ය 10 3 11	1-124-556-11 1-161-494-00		20%	16V 25V	
C107 C108 C109	1-130-473-00 1-124-464-11 1-124-963-11	MYLAR 0.0015MF 5% 56 ELECT 0.22MF 20% 56	0V 0V 6V	C312	1-124-902-00	ELECT 0.47MF	20%	50 V	

Ref.No.	Part No.	Description				Ref.No.	Part No.	Description		
C3 13 C3 15 C3 16	1-161-494-00 1-102-963-00 1-102-963-00	CERAMIC CERAMIC CERAMIC	0.022MF 33PF 33PF	5% 5%	25V 50V 50V	C478 C479 C480	1-162-219-31 1-124-963-11 1-124-963-11	CERAMIC ELECT ELECT	68PF 33MF 33MF	5% 20% 20%
C3 17 C3 18 C3 19	1-126-176-11 1-161-494-00 1-161-494-00	ELECT CERAMIC CERAMIC	220MF 0.022MF 0.022MF	20%	10V 25V 25V	C502 C503 C504	1-162-282-31 1-126-101-11 1-162-286-31	CERAMIC ELECT CERAMIC	100PF 100MF 220PF	10% 20% 10%
C320 C321 C322	1-161-494-00 1-161-494-00 1-161-494-00	CERAMIC CERAMIC CERAMIC	0.022MF 0.022MF 0.022MF		25V 25V 25V	C506 C507 C508	1-124-910-11 1-124-122-11 1-124-122-11	ELECT ELECT ELECT	47MF 100MF 100MF	20% 20% 20%
C323 C324 C326	1-124-446-11 1-161-494-00 1-124-902-00	ELECT CERAMIC ELECT	47MF 0.022MF 0.47MF	20% 20%	10V 25V 50V	C509 C509	1-124-915-11 1-126-233-11	(E,Saudi Aral ELE (AEP,UK,WG,I	CT 10MF T)	20%
C327 C329 C330	1-161-494-00 1-124-963-11 1-124-963-11	CERAMIC ELECT ELECT	0.022MF 33MF 33MF	20% 20%	25V 16V 16V	C510 C511 C514	1-136-163-00 1-136-163-00	FILM FILM	0.068MF 0.068MF	20% 5% 5%
C331 C351 C352	1-161-494-00 1-162-288-31 1-124-257-00	CERAMIC (WG,IT)CE ELECT	0.022MF RAMIC 330P 2.2MF	F 10% 20%	25V 50V 50V	C5 15 C5 16 C5 52	1-136-163-00 1-136-163-00 1-161-379-00 1-162-282-31	(WG,IT)FI (WG,IT)FI (WG,IT)CEI CERAMIC	LM 0.068MF	5% 5% 2% 10%
C353 C376 C401	1-162-288-31 1-124-902-00 1-126-096-11	(WG,IT)CE ELECT ELECT	RAMIC 330P 0.47MF 10MF	F 10% 20% 20%	50V 50V 25V	C553 C554 C556	1-126-101-11 1-162-286-31 1-124-910-11	ELECT CERAMIC ELECT	100MF 220PF 47MF	20% 10% 20%
C402 C403 C404	1-162-219-31 1-162-197-31 1-124-257-00	CERAMIC CERAMIC ELECT	68PF 6.8PF 2.2MF	5% 10% 20%	50V 50V 50V	C560 C561 C564	1-136-163-00 1-136-163-00 1-136-163-00	FILM FILM (WG,IT)FI	0.068MF 0.068MF	5% 5% 5%
C405 C413 C414	1-124-257-00 1-136-154-00 1-136-154-00	ELECT FILM FILM	2.2MF 0.012MF 0.012MF	20% 5% 5%	50V 50V 50V	C565 C566 C707	1-136-163-00 1-161-379-00 1-126-176-11	(WG,IT)FII (WG,IT)CE	_M 0.068M	F 5%
C4 15 C4 16 C4 18	1-130-473-00 1-162-219-31 1-126-096-11	MYLAR CERAMIC ELECT	0.0015MF 68PF 10MF	5% 5% 20%	50V 50V 25V	C708 C709 C710	1-126-176-11 1-124-443-00 1-124-464-11	ELECT ELECT ELECT	220MF 100MF 0.22MF	20% 20% 20%
C4 19 C4 20 C4 2 1	1-124-963-11 1-124-257-00 1-162-282-31	ELECT ELECT CERAMIC	33MF 2.2MF 100PF	20% 20% 10%	16V 50V 50V	C711 C901 C902	1-124-257-00 1-102-355-00 1-162-294-31	ELECT CERAMIC CERAMIC	2.2MF 0.01MF 0.001MF	20%
C422 C423 C424	1-162-219-31 1-126-163-11 1-124-438-00	CERAMIC ELECT ELECT	68PF 4.7MF 1MF	5% 20% 20%	50V 50V 50V	C903	1-162-294-31 1-126-224-11	CERAMIC (AEP,UK,WG.IELEC		10%
C425 C426 C451	1-136-165-00 1-124-257-00 1-126-096-11	FILM ELECT ELECT	0.1MF 2.2MF 10MF	5% 20% 20%	50V 50V 25V	C904 C905	1-126-258-51	(E,Saudi Ara ELEC (AEP,UK,WG.I	oia) F 4700MF	20%
C452 C453 C454	1-162-219-31 1-162-197-31 1-124-257-00	CERAMIC CERAMIC ELECT	68PF 6.8PF 2.2MF	5% 10% 20%	50V 50V 50V	C905	1-126-258-51	ELEC (E,Saudi Aral	f 4700MF oia)	20%
C455 C463 C464	1-124-257-00 1-136-154-00 1-136-154-00	ELECT FILM FILM	2.2MF 0.012MF 0.012MF	20% 5% 5%	50V 50V 50V	C907 C908 C909	1-126-233-11 1-124-122-11 1-124-443-00	ELECT ELECT ELECT	22MF 100MF 100MF	20% 20% 20%
C465 C466 C468	1-130-473-00 1-162-219-31 1-126-096-11	MYLAR CERAMIC ELECT	0.0015MF 68PF 10MF	5% 5% 20%	50V 50V 25V	C912 C914 C915	△1-161-744-00 1-124-557-11 1-124-557-11	CERAMIC ELECT ELECT	0.01MF 1000MF 1000MF	20% 20%
C469 C470 C471	1-124-963-11 1-124-257-00 1-162-282-31	ELECT ELECT CERAMIC	33MF 2.2MF 100PF	20% 20% 10%	16V 50V 50V	C9 18 C9 19 C920	1-126-101-11 1-124-463-00 1-124-446-11	(UK)ELECT ELECT ELECT	100MF 0.1MF 47MF	20% 20% 20%
C472 C473 C474	1-124-963-11 1-126-163-11 1-124-438-00	ELECT ELECT ELECT	33MF 4.7MF 1MF	20% 20% 20%	16 V 50 V 50 V	C922 C923 C924	1-124-557-11 1-124-912-11 1-126-101-11	(E,Saudi Aral ELECT	7 1000MF 330MF	20% 20%
C475 C476 C477	1-136-165-00 1-124-257-00 1-124-963-11	FILM ELECT ELECT	0.1MF 2.2MF 33MF	5% 20% 20%	50V 50V 16V	U924	1-120-101-11		100MF mponents ide	

nents identified by mark \(\frac{\Lambda}{\Lambda} \) or dotted line with mark \(\frac{\Lambda}{\Lambda} \) are critical for safety.

Replace only with part number specified.

500

161

161

50V

50**V**

35**V**

50**V**

50**V**

63V

50V

50V

50**V** 50**V**

50V 16V 500

161

500

35V

50V

50**V** 50V

50**V** 16 V 6.3V

6.3V

6.3

50V

50V

50V 50V

42V

56V

42V

56V

50**V**

507

100 400V

25V

25 V

167

500

100

25 V 50 V 16 V

Re	ef.No.	Part No.	Description	R	ef.No.	Part No.	Description
	C925 C926 C927	1-126-101-11 1-161-379-00 1-161-379-00	CERAMIC 0.01MF 30% 25V		D905 D906 D907	8-719-200-77 8-719-200-77 8-719-200-77	DIODE TOE2N
	C928 C929 C930	1-161-379-00 1-161-494-00 1-124-438-00			D908 D909 D910	8-719-200-77 8-719-200-77 8-719-200-77	DIODE 10E2N (E,Saudi Arabia)DIODE 10E2N (E,Saudi Arabia)DIODE 10E2N
	CN304	*1-566-858-11 *1-565-439-11 *1-565-439-11	SOCKET, CONNECTOR 11P(SYSTEM CONTROL 1) PIN, CONNECTOR (PCB) 10P PIN, CONNECTOR (PCB) 10P		D911 D912	8-719-000-26 8-719-000-26	(E,Saudi Arabia)DIODE US1060M (E,Saudi Arabia)DIODE US1060M
	CN308 CN309	*1-565-438-11 *1-565-438-11 *1-565-438-11			F902	<u>1-532-259-00</u> <u>1-532-259-00</u> <u>1-532-203-00</u>	FUSE, TIME-LAG (1.6A) (AEP,WG,E,Saudi Arabia,IT)FUSE, TIME-LAG (1.6A) FUSE, TIME-LAG (2A)
	CN311 CN312	*1-565-439-11 *1-565-439-11 *1-565-438-11	PIN, CONNECTOR (PCB) 10P PIN, CONNECTOR (PCB) 10P		IC101 IC201	≜ 1-532-203-00 8-759-600-02 8-759-106-41	FUSE, TIME-LAG (2A) IC M5218L IC UPC4570C
	CN3 16	*1-565-438-11 *1-565-438-11 *1-565-439-11	SOCKET, CONNECTOR (PCB) 10P		1C302 1C303	8-759-800-37 8-759-802-52 8-759-632-31	IC M50721-127P
	CN501	*1-565-439-11 *1-564-508-11 *1-566-859-11	PIN, CONNECTOR (PCB) TOP PLUG, CONNECTOR 5P SOCKET, CONNECTOR TSP(SYSTEM CONTROL 2)		I C305 I C401	8-759-106-41	IC LB1639 IC GP1U52XB IC UPC4570C
		*1-564-506-11 *1-566-210-11	PLUG, CONNECTOR 3P (UK)PIN, CONNECTOR 3P (OUT PUT)		IC403	8-759-106-41 8-759-106-41 8-749-900-78	IC UPC4570C IC UPC4570C (E,Saudi Arabia)IC STK4192II
	CNJ90	1 <u>/</u> 61-540-041-11 1 <u>/</u> 61-526-751-00 1 <u>/</u> 61-526-794-11	(E)OUTLET, AC (NONPOLAR) (2P) (UK)OUTLET, AC (AEP,WG,Saudi Arabia,IT)OUTLET, AC		I C702		(AEP,UK,WG,IT)IC STK4152II IC UPC1237HA IC M5F7810
	CNJ902	2 <u>1</u> 3-526-794-11	(AEP,WG,Saudi Arabia,IT)OUTLET, AC			8-759-604-50	IC M5F7910
	D301 D302 D303	8-719-000-26 8-719-000-26 8-719-000-26			10903 10904		(UK)IC M5F7812 IC L78MR05
	D304 D305 D306	8-719-000-26	DIODE HZS6B1L		J101	1-565-320-11	JACK, PIN 6P (PHONO IN,CD IN,VIDEO/DAT OUT) JACK, PIN 6P (VIDEO/DAT IN,EQUALIZER OUT/IN)
	D307 D308 D309	8-719-301-44 8-719-301-44	DIODE SEL2410E-D		J201 J501 J502	1-563-347-11 1-565-352-21 1-568-018-11	
	D3 10 D3 11 D3 12	8-719-301-44	DIODE SEL2410E-D DIODE SEL2410E-D DIODE SEL2410E-D		L501 L551	*1-420-872-00 *1-420-872-00	COIL, AIR CORE COIL, AIR CORE
	D3 13 D3 14 D3 15	8-719-301-44 8-719-301-44 8-719-301-44	DIODE SEL2410E-D DIODE SEL2410E-D		Q301 Q303 Q304	8-729-107-98 8-729-900-63 8-729-820-10	TRANSISTOR 2SC3622AL TRANSISTOR DTA124ES TRANSISTOR 2SA1317
	D3 16 D3 17 D40 1	8-719-301-44 8-719-311-87 8-719-311-86	DIODE SEL2410E-D (E,Saudi Arabia)DIODE SEL1222R-C		Q305 Q306 Q307	8-729-806-34 8-729-820-23 8-729-806-34	TRANSISTOR 2SC3400 TRANSISTOR 2SC3330S TRANSISTOR 2SC3400
	D402 D703 D704		DIODE SEL4825WMCD DIODE US1060M		Q308 Q309 Q310	8-729-900-63 8-729-900-63 8-729-820-23	
	D705 D706 D707	8-719-000-26 8-719-000-26	DIODE US1060M		Q311 Q312 Q313	8-729-820-23	TRANSISTOR 2SA1317 TRANSISTOR 2SC3330S TRANSISTOR DTA124ES
	D708 D753 D901		DIODE 10E2N DIODE US1060M		Q3 14 Q3 15 Q3 16		TRANSISTOR DTA124ES TRANSISTOR DTA124ES TRANSISTOR DTA124ES
	D902 D903 D904	8-719-200-77 8-719-002-45	DIODE 10E2N DIODE UZL-27M DIODE RD5.1FB2		Q3 17 Q3 18 Q3 19	8-729-900-63 8-729-806-34 8-729-806-34	TRANSISTOR 2SC3400
	D 304	3 713-100-23	DIODE ROOFII DE	ı			

The components identified by mark \bigwedge or dotted line with mark \bigwedge are critical for safety. Replace only with part number specified.

Ref.No	Part No.	Description	Ref.No.	Part No.	<u>Description</u>			
Q320	8-729-806-34	TRANSISTOR 2SC3400	R302	1-249-441-11	CARBON	100K	5%	1/4W
Q321	8-729-806-34	TRANSISTOR 2SC3400	R303	1-249-417-11	CARBON	1K	5%	1/4W
Q322	8-729-806-34	TRANSISTOR 2SC3400	R305	1-249-441-11	CARBON	100K	5%	1/4W
Q351	8-729-107-98	TRANSISTOR 2SC3622AL	R306	1-249-433-11	CARBON	22K	5%	1/4W
Q401	8-729-224-63	TRANSISTOR 2SK246BL	R307	1-249-433-11	CARBON	22K	5%	1/4W
Q402	8-729-119-78	TRANSISTOR 2SC2785HFE	R308	1-249-433-11	CARBON	22K	5%	1/4W
Q451	8-729-224-63	TRANSISTOR 2SK246BL	R309	1-249-433-11	CARBON	22K	5%	1/4W
Q452	8-729-119-78	TRANSISTOR 2SC2785HFE	R310	1-249-441-11	CARBON	100K	5%	1/4W
Q711	8-729-108-06	TRANSISTOR 2SC1841	R311	1-247-901-11	CARBON	820K	5%	1/4W
Q712	8-729-900-63	TRANSISTOR DTA124ES TRANSISTOR 2SC1841 TRANSISTOR 2SB1187F	R312	1-249-441-11	CARBON	100K	5%	1/4W
Q761	8-729-108-06		R313	1-249-441-11	CARBON	100K	5%	1/4W
Q901	8-729-920-91		R314	1-249-433-11	CARBON	22K	5%	1/4W
Q902	8-729-820-23	(E,Saudi Arabia)TRANSISTOR 2SC333	00 R3 16	1-249-4 17-11	CARBON	1K	5%	1/4W
Q903	8-729-806-34	(E,Saudi Arabia)TRANSISTOR 2SC344		1-249-441-11	CARBON	10 OK	5%	1/4W
Q904	8-729-806-34	(E,Saudi Arabia)TRANSISTOR 2SC340		1-249-433-11	CARBON	22K	5%	1/4W
R101	1-249-417-11	(WG,IT)CARBON 1K 5% 1/4W	R3 18	1-247-903-00	CARBON	M	5%	1/4W
R103	1-249-417-11	CARBON 1K 5% 1/4W	R3 19	1-247-903-00	CARBON	M	5%	1/4W
R105	1-247-832-11	CARBON 1.1K 5% 1/4W	R320	1-249-405-11	CARBON	100	5%	1/4W
R106	1-247-897-11	CARBON 560K 5% 1/4W	R321	1-249-405-11	CARBON	100	5%	1/4W
R107	1-249-437-11	CARBON 47K 5% 1/4W	R322	1-249-433-11	CARBON	22K	5%	1/4W
R108	1-249-405-11	CARBON 100 5% 1/4W	R323	1-249-425-11	CARBON	4.7K	5%	1/4W
R109	1-249-441-11	CARBON 10 OK 5% 1/4W CARBON 1K 5% 1/4W CARBON 10 OK 5% 1/4W	R3 24	1-249-429-11	CARBON	10K	5%	1/4W
R110	1-249-417-11		R3 25	1-249-433-11	CARBON	22K	5%	1/4W
R112	1-249-441-11		R3 26	1-249-433-11	CARBON	22K	5%	1/4W
R113	1-249-4 17-1 1	CARBON 1K 5% 1/4W CARBON 10 0K 5% 1/4W CARBON 1K 5% 1/4W	R327	1-249-433-11	CARBON	22K	5%	1/4W
R114	1-249-441-11		R328	1-249-433-11	CARBON	22K	5%	1/4W
R115	1-249-4 17-1 1		R329	1-249-413-11	CARBON	470	5%	1/4W
R117	1-249-441-11	CARBON 100K 5% 1/4W CARBON 100K 5% 1/4W CARBON 100K 5% 1/4W	R330	1-249-412-11	CARBON	390	5%	1/4W
R119	1-249-441-11		R331	1-249-412-11	CARBON	390	5%	1/4W
R121	1-249-441-11		R332	1-249-412-11	CARBON	390	5%	1/4W
R122	1-249-417-11	CARBON 1K 5% 1/4W	R333	1-249-412-11	CARBON	390	5%	1/4W
R123	1-249-441-11	CARBON 100K 5% 1/4W	R334	1-249-412-11	CARBON	390	5%	1/4W
R124	1-249-437-11	CARBON 47K 5% 1/4W	R335	1-249-412-11	CARBON	390	5%	1/4W
R151	1-249-417-11	(WG,IT)CARBON 1K 5% 1/4W	R336	1-249-433-11	CARBON	22K	5%	1/4W
R153	1-249-417-11	CARBON 1K 5% 1/4W	R337	1-249-433-11	CARBON	22K	5%	1/4W
R155	1-247-832-11	CARBON 1.1K 5% 1/4W	R338	1-249-433-11	CARBON	22K	5%	1/4W
R 156	1-247-897-11	CARBON 560K 5% 1/4W	R339	1-249-433-11	CARBON	22K	5%	1/4W
R 157	1-249-437-11	CARBON 47K 5% 1/4W	R340	1-249-433-11	CARBON	22K	5%	1/4W
R 158	1-249-405-11	CARBON 100 5% 1/4W	R341	1-249-425-11	CARBON	4.7K	5%	1/4W
R159 R160 R162	1-249-441-11 1-249-417-11 1-249-441-11	CARBON 10 0K 5% 1/4W CARBON 1K 5% 1/4W CARBON 10 0K 5% 1/4W	R342 R343 R344	1-249-425-11 1-249-431-11 1-249-410-11	CARBON CARBON (E,Saudi Arab		5%	1/4W 1/4W
R 163 R 164 R 165	1-249-417-11 1-249-441-11 1-249-417-11	CARBON 1K 5% 1/4W CARBON 10OK 5% 1/4W CARBON 1K 5% 1/4W	R345 R346 R347	1-249-441-11 1-249-441-11 1-249-441-11	CARBON CARBON CARBON	100K 100K 100K 100K	5% 5% 5%	1/4W 1/4W 1/4W 1/4W
R 167	1-249-441-11	CARBON 100K 5% 1/4W CARBON 100K 5% 1/4W CARBON 100K 5% 1/4W	R348	1-249-441-11	CARBON	10 0K	5%	1/4W
R 169	1-249-441-11		R349	1-249-433-11	CARBON	2 2K	5%	1/4W
R 17 1	1-249-441-11		R350	1-249-433-11	CARBON	2 2K	5%	1/4W
R172	1-249-417-11	CARBON 1K 5% 1/4W CARBON 10 0K 5% 1/4W CARBON 47K 5% 1/4W	R351	1-249-417-11	CARBON	1K	5%	1/4W
R173	1-249-441-11		R352	1-249-441-11	CARBON	100K	5%	1/4W
R174	1-249-437-11		R353	1-249-417-11	CARBON	1K	5%	1/4W
R201	1-249-417-11	CARBON 1K 5% 1/4W CARBON 10K 5% 1/4W CARBON 390 5% 1/4W	R355	1-249-411-11	CARBON	10 0K	5%	1/4W
R202	1-249-429-11		R356	1-249-433-11	CARBON	2 2K	5%	1/4W
R203	1-249-412-11		R357	1-249-435-11	CARBON	3 3K	5%	1/4W
R204 R205 R301	1-249-441-11 1-249-416-11 1-249-417-11	CARBON 100K 5% 1/4W CARBON 820 5% 1/4W CARBON 1K 5% 1/4W		2.5 100 11				17: 11

1/2W 5% 1/2W 1/4W

1/2W 1/2W 5W

1/4W 1W 1W F F

5W

5W

5W

5% 2W F 5% 2W F

Re	f.No.	Part No.	<u>Description</u>					Ref.No.	Part No.	<u>Description</u>			
- 1	R401 R402 R403	1-249-437-11 1-249-437-11 1-249-434-11	CARBON CARBON CARBON	47K 47K 27K	5% 5% 5%	1/4W 1/4W 1/4W		R5 15 R5 16 R5 17	1-247-727-11 1-247-727-11 1-249-433-11	CARBON (WG,IT)CARI CARBON	10 30n 10 22K	5% O 5% 5%	1/2W 1/2 1/4W
	R404 R405 R406	1-249-434-11 1-249-430-11 1-247-903-00	CARBON CARBON CARBON	27K 12K 1M	5% 5% 5%	1/4W 1/4W 1/4W		R518 R551 R552	1-247-746-11 1-247-713-11 1-249-438-11	CARBON CARBON CARBON	390 1K 56K	5% 5% 5%	1/2W 1/4W 1/4W
İ	R4 16 R4 19 R4 20	1-249-406-11 1-249-413-11 1-249-406-11	CARBON CARBON CARBON	120 470 120	5% 5% 5%	1/4W 1/4W 1/4W		R553 R554	1-249-415-11 1-249-438-11	CARBON CARBON	680 56K	5% 5%	1/4W 1/4W
	R421	1-249-441-11	CARBON	100K	5%	1/4W		R555	1-247-756-11	(AEP,UK,WG,IT		5%	1/2W
	R422 R423	1-249-435-11 1-249-435-11	CARBON CARBON	33K 33K	5% 5% 5%	1/4W 1/4W		R555	1-247-758-11	(E,Saudi Arab	ia)		1/2W
	R425	1-249-428-11	CARBON	8.2K	5% 5%	1/4W		R556	1-247-756-11	(AEP,UK,WG,IT		5%	1/2W
	R426 R427	1-249-425-11 1-249-417-11	CARBON CARBON	4.7K 1K	5%	1/4W 1/4W		R556	1-247-758-11	(E,Saudi Arab	ia)		1/2W
	R428 R429 R430	1-249-441-11 1-249-425-11 1-249-441-11	CARBON CARBON CARBON	10 0K 4.7K 10 0K	5% 5% 5%	1/4W 1/4W 1/4W		R566 R562 R564	1-247-727-11 1-217-156-00 1-247-727-11	(WG,IT)CAR METAL PLATE CARBON	BON 1 0.22 10	0 5% 10% 5%	1/2 5W 1/2W
	R431 R432 R433	1-249-417-11 1-249-439-11 1-249-426-11	CARBON CARBON CARBON	1K 68K 5.6K	5% 5% 5%	1/4W 1/4W 1/4W		R565 R567 R568	1-247-727-11 1-249-433-11 1-247-746-11	CARBON CARBON CARBON	10 22K 390	5% 5% 5%	1/2W 1/4W 1/2W
	R434 R435 R451	1-249-412-11 1-247-887-00 1-249-437-11	CARBON CARBON CARBON	390 220K 47K	5% 5% 5%	1/4W 1/4W 1/4W		R722 R723 R724	1-249-417-11 1-249-431-11 1-249-441-11	CARBON CARBON CARBON	1K 15K 100K	5% 5% 5%	1/4W 1/4W 1/4W
	R452 R453 R454	1-249-437-11 1-249-434-11 1-249-434-11	CARBON CARBON CARBON	47K 27K 27K	5% 5% 5%	1/4W 1/4W 1/4W		R725 R726 R727	1-249-438-11 1-249-429-11 1-249-441-11	CARBON CARBON CARBON	56K 10K 100K	5% 5% 5%	1/4W 1/4W 1/4W
	R455 R456 R471	1-249-430-11 1-247-903-00 1-249-441-11	CARBON CARBON CARBON	12K 1M 100K	5% 5% 5%	1/4W 1/4W 1/4W		R729 R730	1-249-434-11 1-247-764-11	CARBON CARBON	27K 10K	5% 5%	1/4W 1/2W
	R472 R473 R475	1-249-435-11 1-249-435-11 1-249-428-11	CARBON CARBON CARBON	33K 33K 8.2K	5% 5% 5%	1/4W 1/4W 1/4W			<u></u> 1-215-891-11 <u></u> 1-216-455-11	(E,Saudi Arab METAL (AEP,UK,WG,IT METAL	OXIDE)	680 560	. 5% 2 5% 2
	R476 R477 R478	1-249-425-11 1-249-417-11 1-249-441-11	CARBON CARBON CARBON	4.7K 1K 100K	5% 5% 5%	1/4W 1/4W 1/4W		R732 R733 R734	1-249-425-11 1-247-903-00 1-249-431-11	CARBON CARBON CARBON	4.7K 1M 15K	5% 5% 5%	1/4W 1/4W 1/4W
	R479 R480 R481	1-249-425-11 1-249-441-11 1-249-417-11	CARBON CARBON CARBON	4.7K 100K 1K	5% 5% 5%	1/4W 1/4W 1/4W		R772 R773 R774	1-249-417-11 1-249-431-11 1-249-441-11	CARBON CARBON CARBON	1K 15K 100K	5% 5% 5%	1/4W 1/4W 1/4W
	R482 R483 R484	1-249-439-11 1-249-426-11 1-249-412-11	CARBON CARBON CARBON	68K 5.6K 390	5% 5% 5%	1/4W 1/4W 1/4W		R775 R901 R902	1-249-437-11 1-217-469-00 1-247-761-11	CARBON FUSIBLE CARBON	47K 1 5.6K	5% 5% 5%	1/4W 1W 1/2W
	R501 R502 R503 R504	1-247-713-11 1-249-438-11 1-249-415-11 1-249-438-11	CARBON CARBON CARBON CARBON	1K 56K 680 56K	5% 5% 5% 5%	1/4W 1/4W 1/4W 1/4W		R903 R904 R905	1-249-422-11 <u>1-217-469-00</u> 1-217-469-00	CARBON FUSIBLE FUSIBLE	2.7K 1	5% 5% 5%	1/4W 1W 1W
	R505	1-247-758-11	(E,Saudi Arab	ia)				R907	1-249-423-11	(E,Saudi Arab			
	R505	1-247-756-11	CARBON (AEP,UK,WG,IT		- 5%	1/2W		R908	1-249-433-11	CARBON CARBON	3.3 22K		1/4W 1/4W
			CARBON	2.2K	5%	1/2W		R910	1-217-156-00	(E,Saudi Arab			
	R506	1-247-756-11	(AEP,UK,WG,IT		5%	1/2W		R911	1-217-156-00	METAL (E,Saudi Arab		0.22	10%
	R506	1-247-758-11	(E,Saudi Arab	ia)		1/2W				METAL		0.22	10%
	R507 R508 R510	<u></u> ∆1-212-881-11 <u></u> ∆1-212-881-11 1-247-752-11	FUSIBLE FUSIBLE CARBON	100 100 1K	5% 5% 5%	1/4W	F F	R912	1-217-156-00	(E,Saudi Arab		0.22	10%
	R511 R512 R514	1-247-752-11 1-217-156-00 1-247-727-11	CARBON METAL PLATE CARBON	1K 0.22 10	5% 10% 5%	1/2W 5W 1/2W				The con mark A A are cr Replace specified.	or dott	ed line or safet	with n y.

identified by I line with mark safety. Replace only with part number specified.

Ref.No. Part No.	Description	
R913 1-217-156-00	(E,Saudi Arabia) METAL PLATE 0.22 10% 5W	S.
R914 <u>1-217-469-00</u>	FUSIBLE 1 5% 1W F	- , 19
RV201 1-237-883-11 RV401 1-237-881-11 RV402 1-237-881-11	RES, VAR, CARBON 50K (MIC LEVEL) RES, VAR, CARBON 100K/100K (BASS) RES, VAR, CARBON 100K/100K (TREBLE)	
RV403 1-237-882-11 RV404 1-237-884-11	RES, VAR, CARBON 100K (BALANCE) RES, VAR, CARBON 100K/100K (including motor)(VOLUME)	
RY701 1-515-501-00 RY901 1-515-720-11	RELAY RELAY	
\$301	SWITCH, KEY BOARD (PHONO) SWITCH, KEY BOARD (TUNER) SWITCH, KEY BOARD (CD) SWITCH, KEY BOARD (TAPE)	
\$305 1-554-303-21 \$306 1-554-303-21 \$307 1-552-412-00	SWITCH, KEY BOARD (VIDEO/DAT) SWITCH, KEY BOARD (EQ REC) (E,Saudi Arebia)SWITCH, KEY BOARD (SYSTEM POWER)	
\$401 1-571-292-11 \$402 1-571-292-11 \$402 1-571-292-11 \$901 ▲1-554-920-21	SWITCH, PUSH (1 KEY)(SURROUND) (AEP, WG, UK, IT)SWITCH, PUSH (1 KEY)(DB (E, Saudi Arebia)SWITCH, PUSH (1 KEY)(SA (AEP, UK, WG, IT)SWITCH, PUSH (1 KEY)(AC POWER)(POWER)	(T)
T901	(E,Saudi Arebia)TRANSFORMER, POWER (AEP,WG,UK,IT)TRANSFORMER, POWER	
T902 <u></u> ≜ 1-449-723-11	(E,Saudi Arebia)TRANSFORMER, POWER	
TB501 1-536-705-00	TERMINAL BOARD (SP)(SPEAKER)	
VS901 <u>A</u> 1-571-437-11	(E,Saudi Arebia)SWITCH, POWER VOLTAGE CHANGE (VOLTAGE SELECTOR)	
XT301 1-567-839-11	VIBRATOR, CERAMIC 3MHz	

The components identified by mark \(\frac{\hat{\Lambda}}{\text{n}} \) or dotted line with mark \(\frac{\hat{\Lambda}}{\text{n}} \) are critical for safety.

Replace only with part number specified.

TC-V701

SERVICE MANUAL

AEP Model UK Model E Model

TC-V701 is the cassette deck section in LBT-V701.



Model Name Using Similar Mechanism	TC-WR810
Tape Transport Mechanism	Deck A: TCM-170RA1
Туре	Deck B: TCM-170RB18

SPECIFICATIONS

Recording system Frequency response

4-track 2-channel stereo DOLBY NR OFF (DIN)

With TYPE II cassette (Sony UX-S) 30 to 14,000 Hz \pm 3 dB With TYPE I cassette (Sony HF-S)

30 to 13,000 Hz \pm 3 dB

Wow and flutter

 \pm 0.2 % (DIN)

Dimensions

Approx. $355 \times 133 \times 308$ mm (w/h/d)

 $(14 \times 5^{1}/_{4} \times 12^{1}/_{6} \text{ inches})$

Incl. projecting parts and controls

Weight

Approx. 3.7 kg (8 lb 3 oz)

Dolby noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol D are trademarks of

Dolby Laboratories Licensing Corporation.

STEREO CASSETTE DECK
SONY



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SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK A OR DOTTED LINE WITH MARK A ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

SECTION 1 SERVICING NOTES

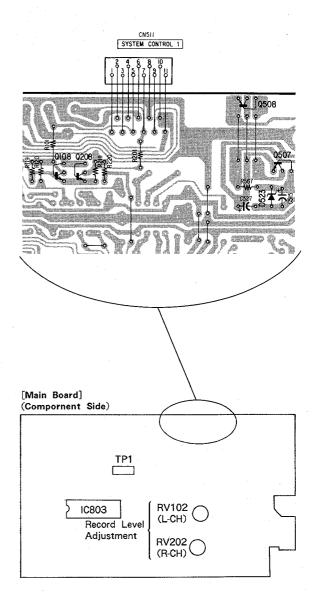
Power Supply

On servicing, connect CN510 (SYSTEM CONTROL 2) to the system amplifier TA-V701.

• LINE IN OUT (CN511 : SYSTEM CONTROL 1) Loacation

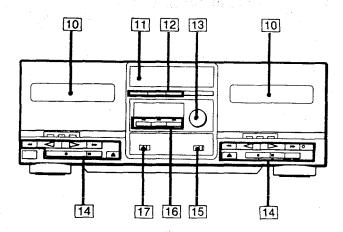
LINE OUT { L-CH : Pin ⑤ R-CH : Pin ⑦

LINE IN { L-CH : Pin (9) R-CH : Pin (11)



SECTION 2 GENERAL

• Parts Identification



- 10 Cassette holders
- 11 Display window
- 12 COUNTER setting buttons
- 13 REC (recording) LEVEL control
- 14 Tape operation buttons
 - ← Leftward fast winding
 - ►► Rightward fast winding
 - □ Reverse play
 - ▶ Forward play
 - Stop

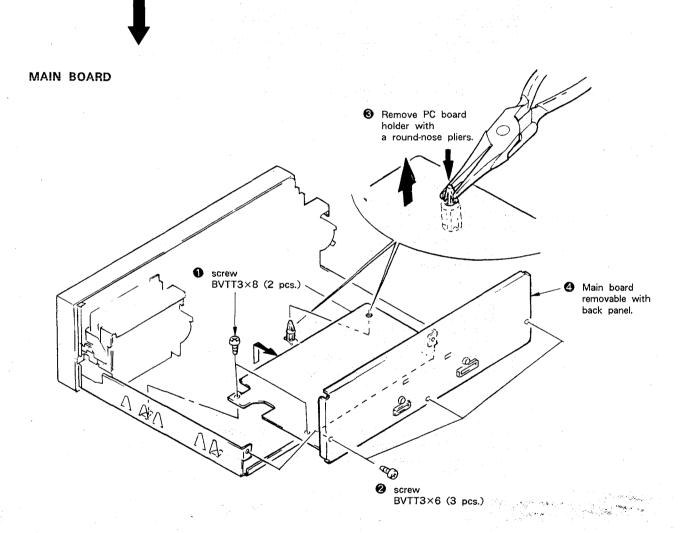
 - ▲ Eject II PAUSE
 - O REC MUTE (record muting, for deck B only)
 - REC (record, for deck B only)
- 15 DOLBY NR* (Noise Reduction) switch
- 16 SYNCHRO (sinchronized) DUBBING speed selector
 17 DIRECTION MODE selector
- * Dolby Noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "DOLBY" and the double-D symbol are trademarks of Dolby Licensing Corporation.

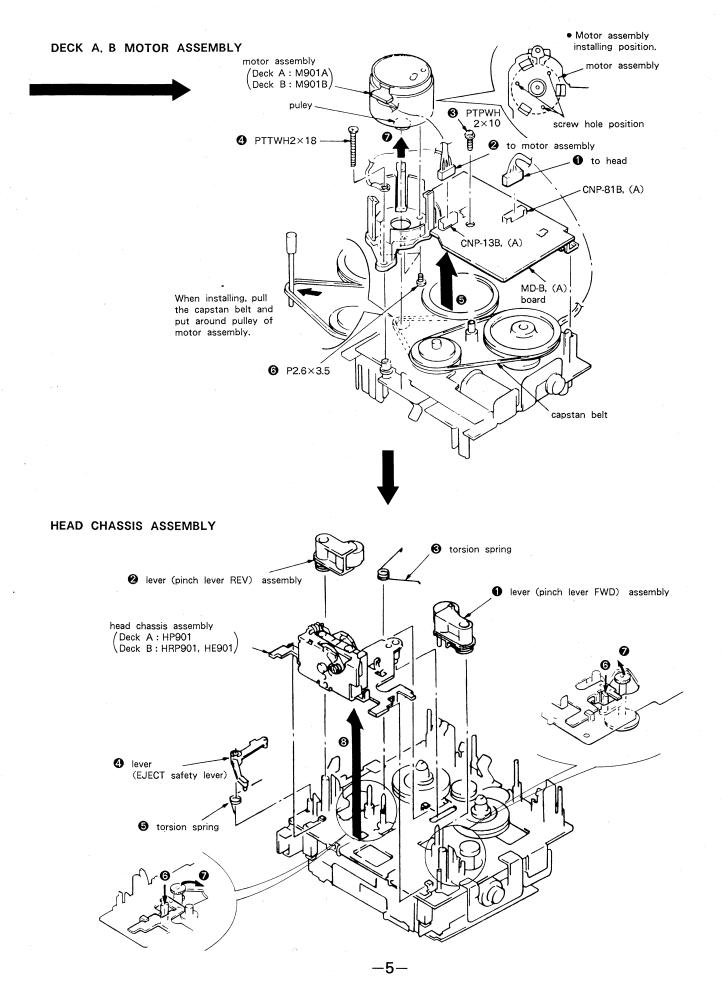
SECTION 3 DISASSEMBLY

Note: Follow the disassembly procedure in the numerical order given.

Remove the case by removing four case stopping screw $(M3\times8)$.

- Push EJECT button and slide the cassette lid off.
- Remove the connectors on MD blocks. (Deck A: CNP11, 12, 82, Deck B: CNP11, 12, 82, 83)
- Remove the front panel assembly with MD blocks.
- Remove eight MD stopping screw P2.6×8.
- 6 Remove the cassette holder assemblies and the cassette retainers.





SECTION 4 ADJUSTMENTS

4-1. MECHANICAL ADJUSTMENT

PRECAUTION

1. Clean the following parts with a denatured-alcohol-moistened swab:

record/playback head erase head capstan

pinch roller rubber belts idler

- Demagnetize the record/playback head with a head demagnetizer.
- tizer.
 3. Do not use a magnetized screwdriver for the adjustments.
- 4. After the adjustments, apply suitable locking compound to the parts adjusted.

Torque Measurement

Torque	Torque Meter	Meter Reading
FWD	CQ-102C	30 to 60 g · cm (0.42 to 0.83 oz · inch)
FWD Back Tension	CQ-102C	1 to 5 g • cm (0.014 to 0.06 oz • inch)
REV	CQ-102RC	30 to 60 g · cm (0.42 to 0.83 oz · inch)
REV Back Tension	EQ-102RC	1 to 5 g • cm (0.014 to 0.06 oz • inch)
FF, REW	CQ-201B	100 to 170 g • cm (1.4 to 2.36 oz • inch)

4-2. ELECTRICAL ADJUSTMENTS

Note: The adjustment should be performed in the order given in the service manual.

The adjustments should be performed for both L-CH and R-CH, $% \left(1\right) =\left(1\right) +\left(1\right)$

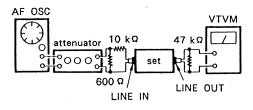
• Switches and controls should be set as follows unless otherwise specified.

DOLBY NR switch: OFF

· Standard Record:

Deliver the standard input signal level to the input jack and set the REC LEVEL control to obtain the standard output signal level.

-Record Mode-



Standard Input Level

	LINE IN
source impedance	10 kΩ
input level	0.25 V (-10 dB)

• Standard Output Level

	LINE OUT
load impedance	47 kΩ
output level	0.44 V (-5 dB)

• Test tape

Туре	Signal	User for
P-4-A100	10 kHz, -10 dB	Azimuth Adjustment
P-4-L300	315 Hz, 0 dB	PB LEVEL Adjustment
WS-48B	3 kHz, 0 dB	Tape Speed Adjustment

• Test Mode

When making pin 3 of IC803 low (connect TP1 to ground with jumper wire), following function operates.

1. Source monitor

Release the line mute while recording.

2. High speed playback

On recording, while pressing HIGH SPEED (DUBBING) button, high speed playback operates.

4. LED indication of slide switch

When making Deck B pause, LED indicates the positions of DIRECTION MODE switch,

Switch	Position	LED
DIRECTION MODE	=	Deck A◀
	C	Deck A PLAY
	RELAY	Deck A▶

5. AGC gain check

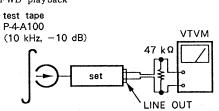
When setting DIRECTION MODE switch to = and recording, AGC gain becomes maximum,

Record / Playback Head Azimuth Adjustment

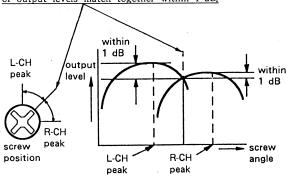
DECK A DECK B

Procedure:

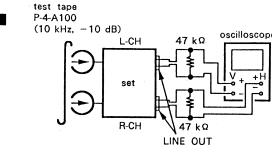
1. Mode: FWD playback

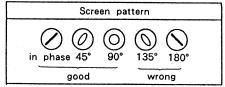


2. Turn the adjustment screw for the maximum output levels, If these levels do not match, turn the adjustment screw until both of output levels match together within 1 dB.



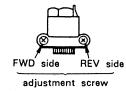
3. Phase Check
Mode: playback





- 4. Set in the REV mode and repect the step 1 3.
- 5. After the adjustment, lock the screws with locking compound.

Adjustment Location: record/playback head

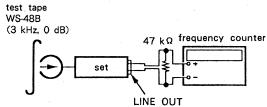


Tape Speed Adjustment DECK A DECK B

Perform high speed adjustment before normal speed adjustment.

Procedure :

Mode: FWD playback



[High Speed Adjustment]

- 1. Short-circuit TP1.
- 2. Put the set to FWD playback state.
- Press and keep on pressing HIGH SPEED DUBBING switch (S802 on FL board).
- 4. On this time, adjust with the semi-fixed variable resistors (H) on the rear side of M901A (Deck A) and M901B (Deck B) so that the reading on the frequency counter becomes the adjustment limits.
- 5. After adjustment, release the short on TP1.

[Normal Speed Adjustment]

- 1. Put the set to FWD playback state.
- On this time, adjust with the semi-fixed variable resistors (L)
 on the rear side of M901A (Deck A) and M901B (Deck B) so
 that the reading on the frequency counter becomes the adjustment limits.

Adjustment Limits:

Speed	Frequency Counter
high	5,960 ±60 Hz
normal	2,980 ±30 Hz

Frequency difference between the beginning and the end of the tape should be within 3%.

Frequency difference between Deck A and Deck B the beginning of the tape should be within 1.5%.

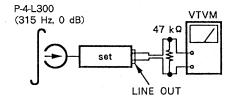
Adjustment Location:

Deck A: motor (M901A) rear side Deck B: motor (M901B) rear side

Playback Level Adjustment DECK A DECK B

Procedure:

Mode: playback



Adjust Deck A: RV41A (L-CH), RV61A (R-CH) and Deck B: RV41B (L-CH), RV61B (R-CH) so that the VTVM reading becomes the adjustment limits below.

Adjustment Limits:

LINE OUT level: -5 ± 1.5 dB (0.37 - 0.51 V) Level difference between channels: less than 1 dB. Check that the LINE OUT level does not change in playback mode while changing the mode from playback to stop several times.

Adjustment Location: MD (A), (B) board

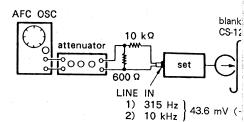
Record Bias Adjustment DECK B

Setting

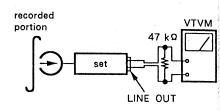
- · REC LEVEL control: standard record (See page
- · Short-circuit TP1.

Procedure :

1. Mode: record



2. Mode: playback

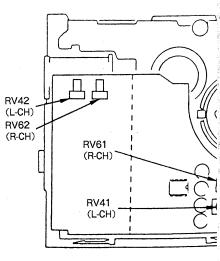


Confirm that the 10 kHz playback output is 0 ± 0.5 to the 315 Hz output. If necessary, adjust RV42 (1 (R-CH) and repeat the steps given above.

3. After adjustment, release the short on TP1.

Adjustment Location: MD (B) board

-Adjustment Parts Location Diagram-



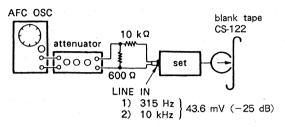
Record Bias Adjustment DECK B

Setting:

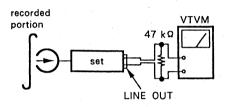
- REC LEVEL control: standard record (See page 6.)
- · Short-circuit TP1.

Procedure :

1. Mode: record



2. Mode: playback



Confirm that the 10 kHz playback output is $0\pm0.5~dB$ ralative to the 315 Hz output. If necessary, adjust RV42 (L-CH), RV62 (R-CH) and repeat the steps given above.

3. After adjustment, release the short on TP1.

Adjustment Location: MD (B) board

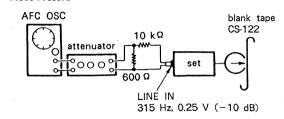
Record Level Adjustment DECK B

Setting:

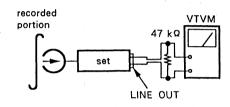
- REC LEVEL control: standard record (See page 6.)
- · Short-circuit TP1.

Procedure:

1. Mode: record



2. Mode: playback

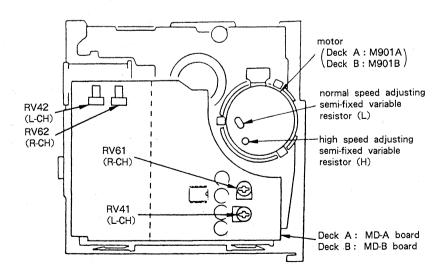


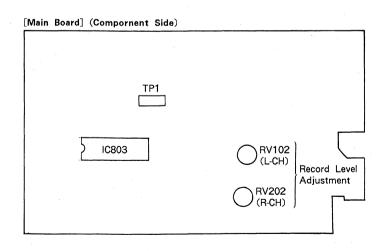
- 3. Play back the signal recorded in step 1. Confirm that the signal level is within the specification below. If necessary, adjust RV102 (L-CH), RV202 (R-CH) and repeat the step $1\,-\,3$.
- 4. After adjustment, release the short on TP1.

Specification : LINE OUT level : $-5\pm0.5~\text{dB}$ (0.41 - 0.46 V)

Adjustment Location: main board

-Adjustment Parts Location Diagram-





SECTION 5 DIAGRAMS

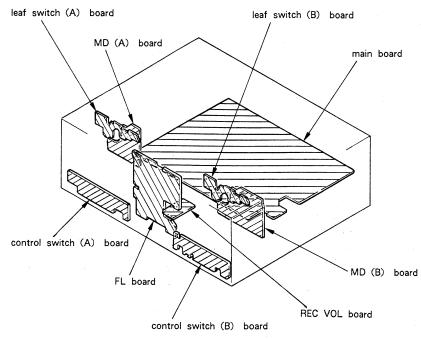
5-1. PRINTED WIRING BOARDS

• See page 20 for Semiconductor Lead Layouts.

Note:

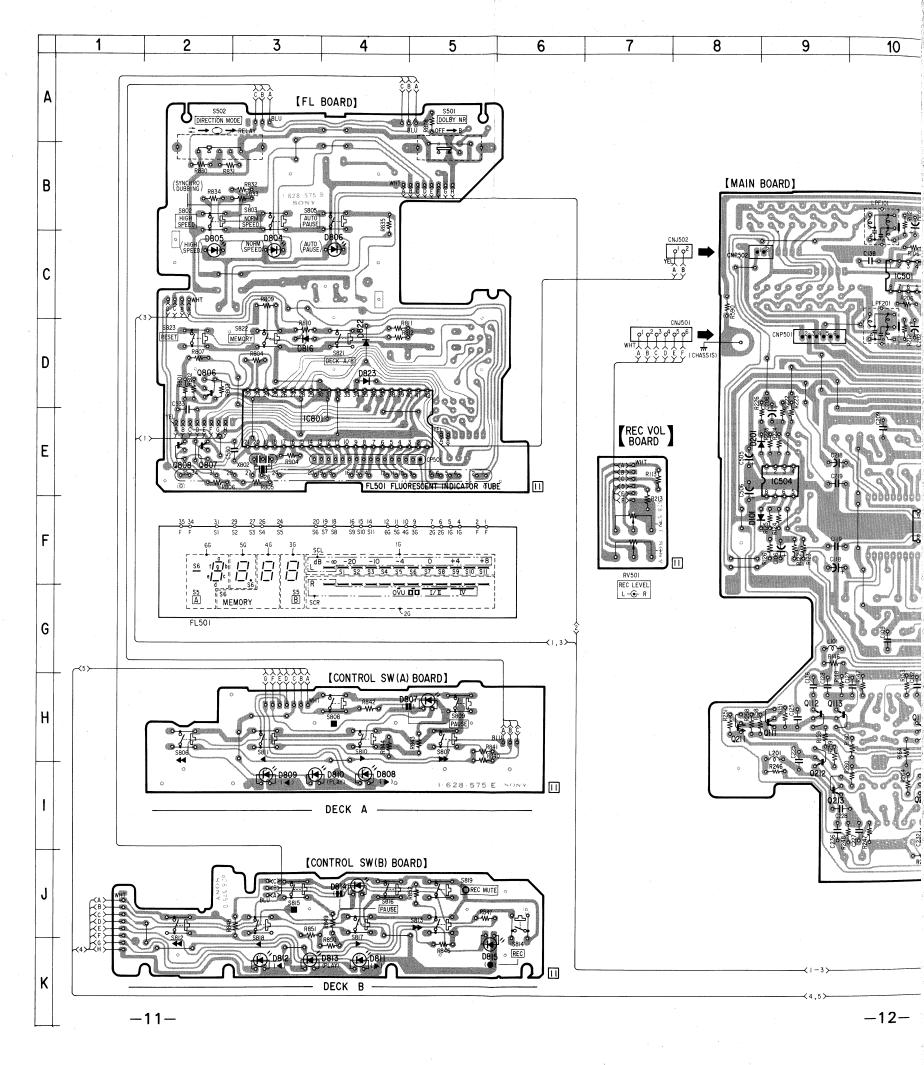
• o---: parts extracted from the component side.

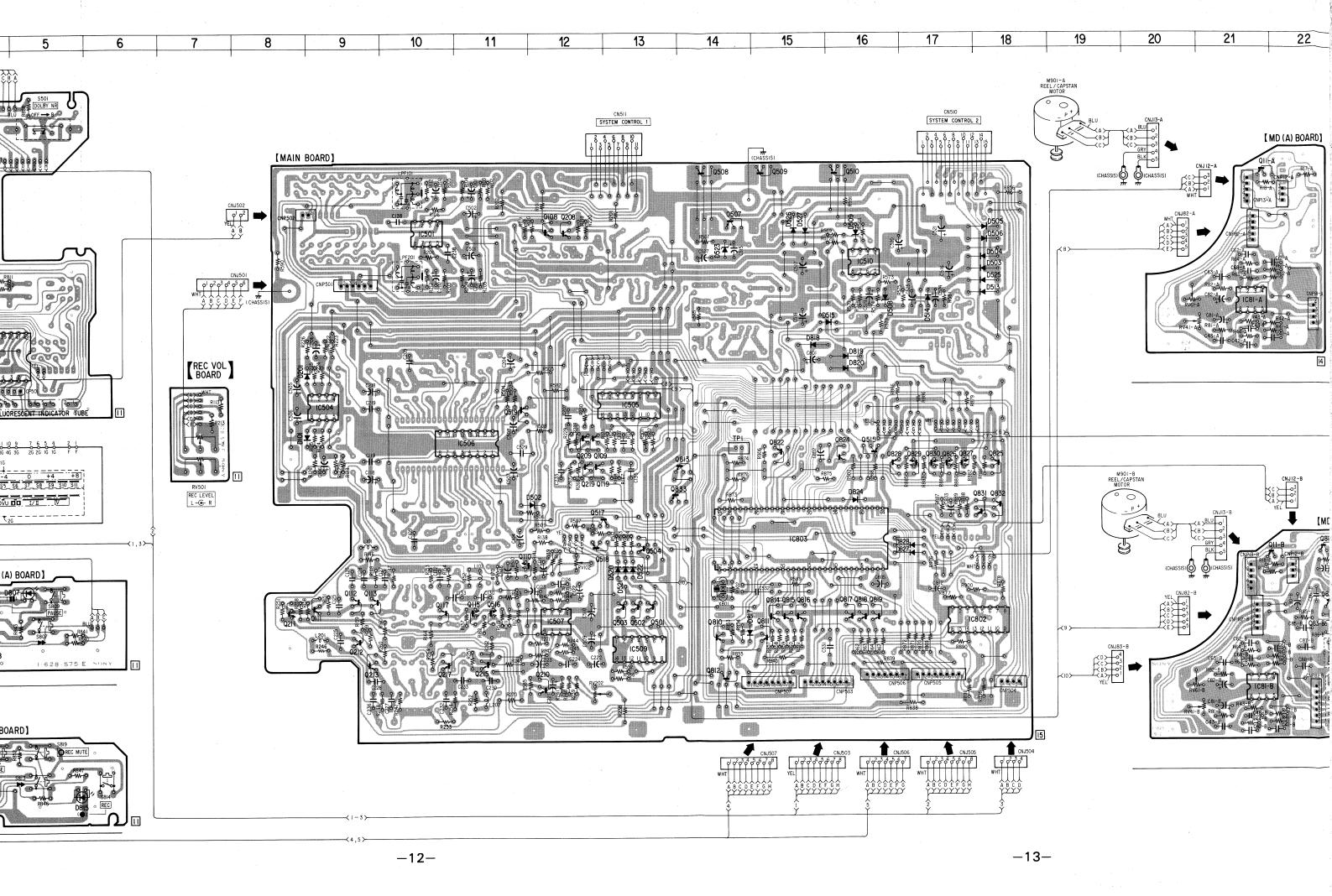
• Circuit Boards Location

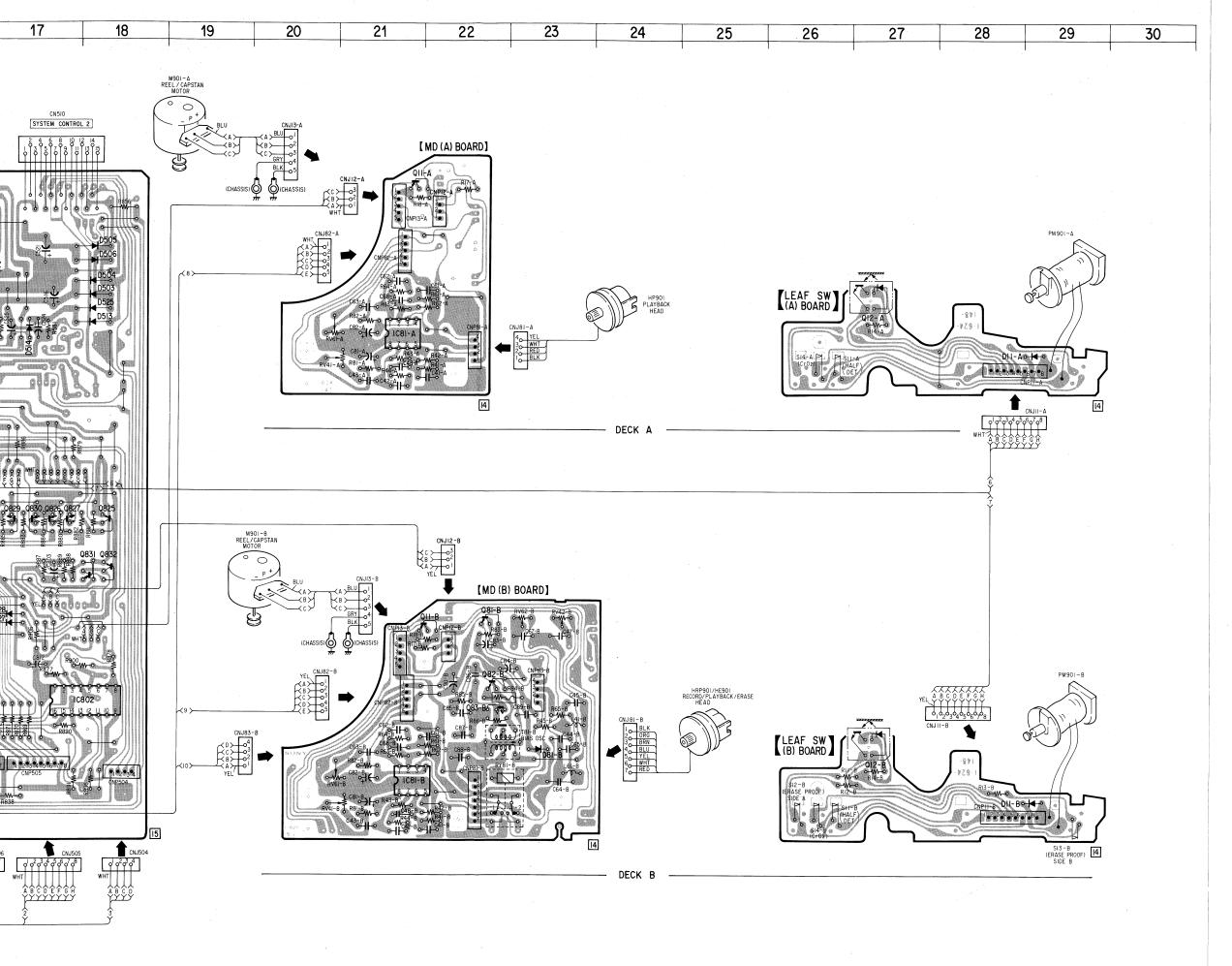


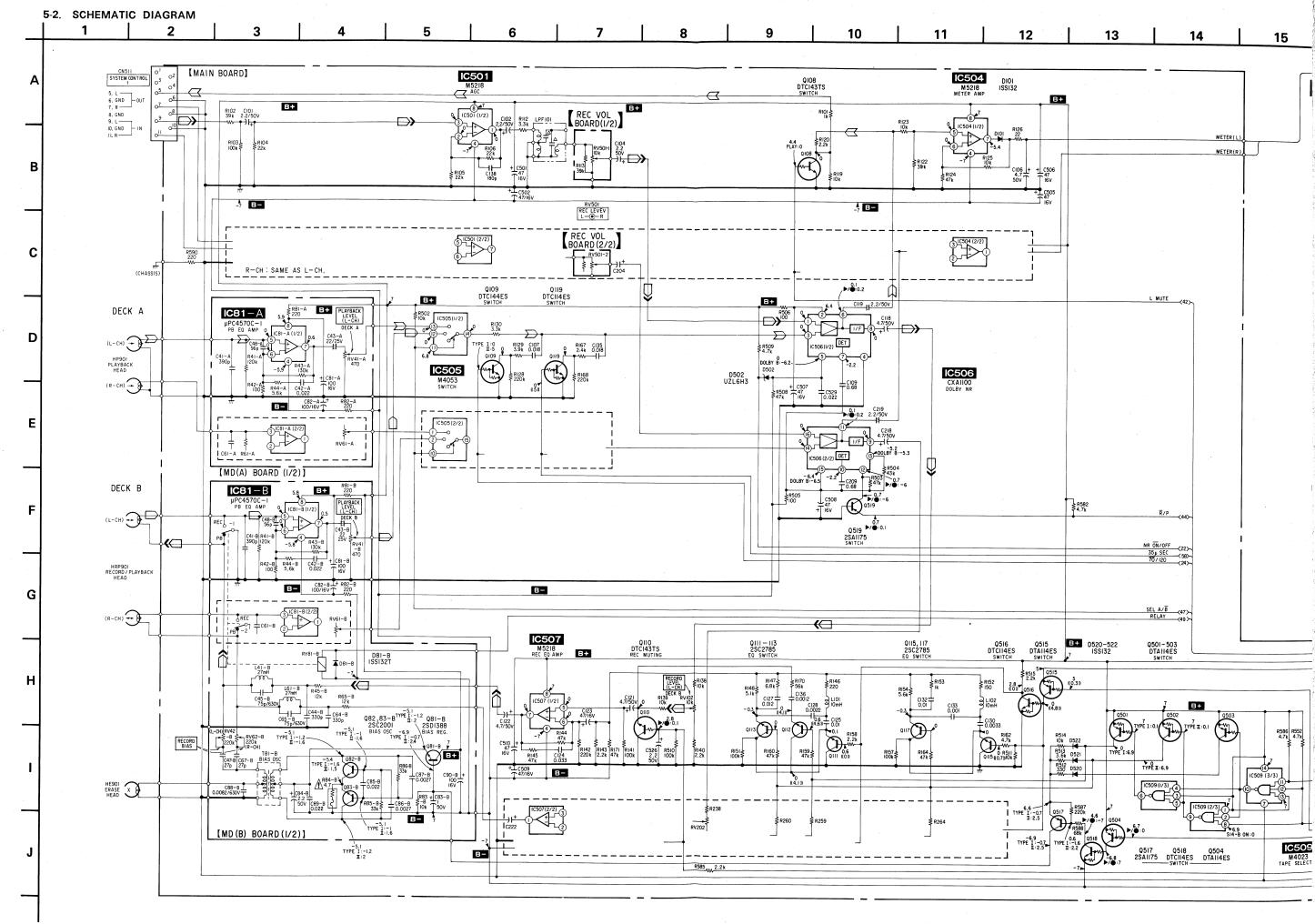
Semiconductor Location

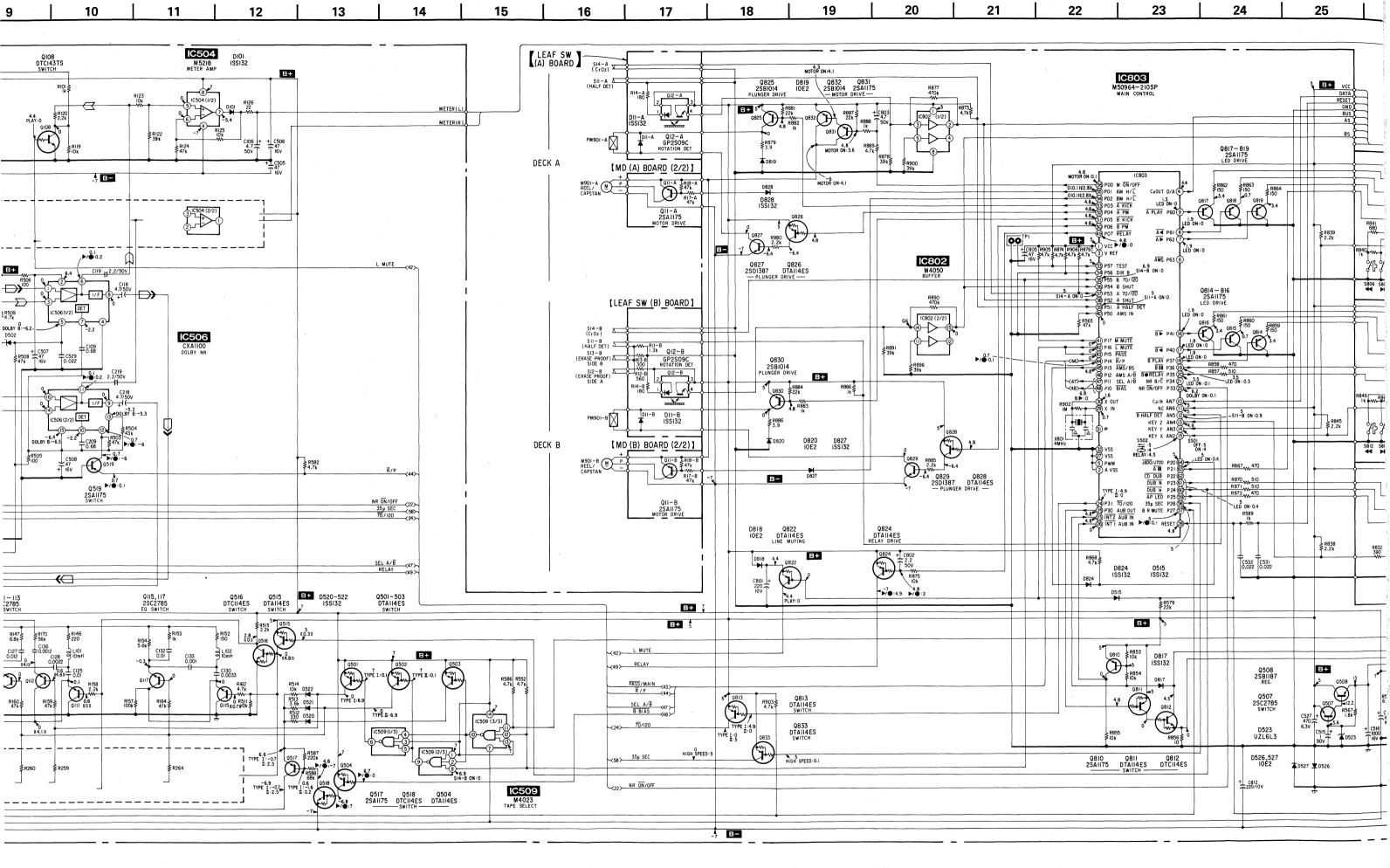
							•
Ref. No.	Location	Ref. No.	Location	Ref. No.	Location	Ref. No.	Location
D11-A D11-B D81-B D101 D201 D502 D503 D504 D505 D506 D508 D509 D513 D514 D515 D520 D521 D522 D523 D525 D526 D526 D527 D804 D805 D806 D809 D810 D811 D811 D811 D813 D814 D815	D-29 I-29 I-29 I-23 F-9 G-12 C-18 C-18 C-18 C-16 D-18 D-16 D-18 D-16 D-18 D-15 C-15 C-2 C-4 H-3 I-3 K-3 K-3 J-4 K-5	D816 D817 D818 D819 D820 D822 D823 D824 D827 D828 IC81-A IC81-B IC5001 IC5004 IC505 IC5006 IC507 IC509 IC510 IC801 IC802 IC803 Q11-A Q11-B Q12-B Q81-B Q81-B Q83-B Q81-B Q83-B Q109 Q110	D-3 H-14 E-15 E-16 E-16 D-4 G-16 G-17 G-17 D-21 I-21 C-10 E-9 E-13 F-11 H-12 I-13 C-16 E-3 H-18 G-15 B-21 G-22 D-27 I-27 G-22 H-22 C-12 F-12 H-11	Q1111 Q112 Q113 Q115 Q117 Q119 Q208 Q209 Q210 Q211 Q212 Q213 Q215 Q217 Q219 Q501 Q502 Q503 Q504 Q507 Q508 Q509 Q516 Q516 Q517 Q518 Q517 Q518 Q519 Q511 Q519 Q511 Q519 Q511 Q511 Q511	H-9 H-9 H-11 H-10 F-12 C-12 F-12 I-12 I-19 I-9 I-11 I-10 F-12 H-13 H-13 H-13 G-13 C-14 B-14 B-16 H-11 G-12 G-12 E-2 H-14 H-15 I-14	Q813 Q814 Q815 Q816 Q817 Q818 Q819 Q822 Q824 Q825 Q826 Q827 Q828 Q829 Q830 Q831 Q832 Q833	F-14 H-15 H-15 H-16 H-16 F-15 F-17 F-17 F-17 G-18 G-18 G-14

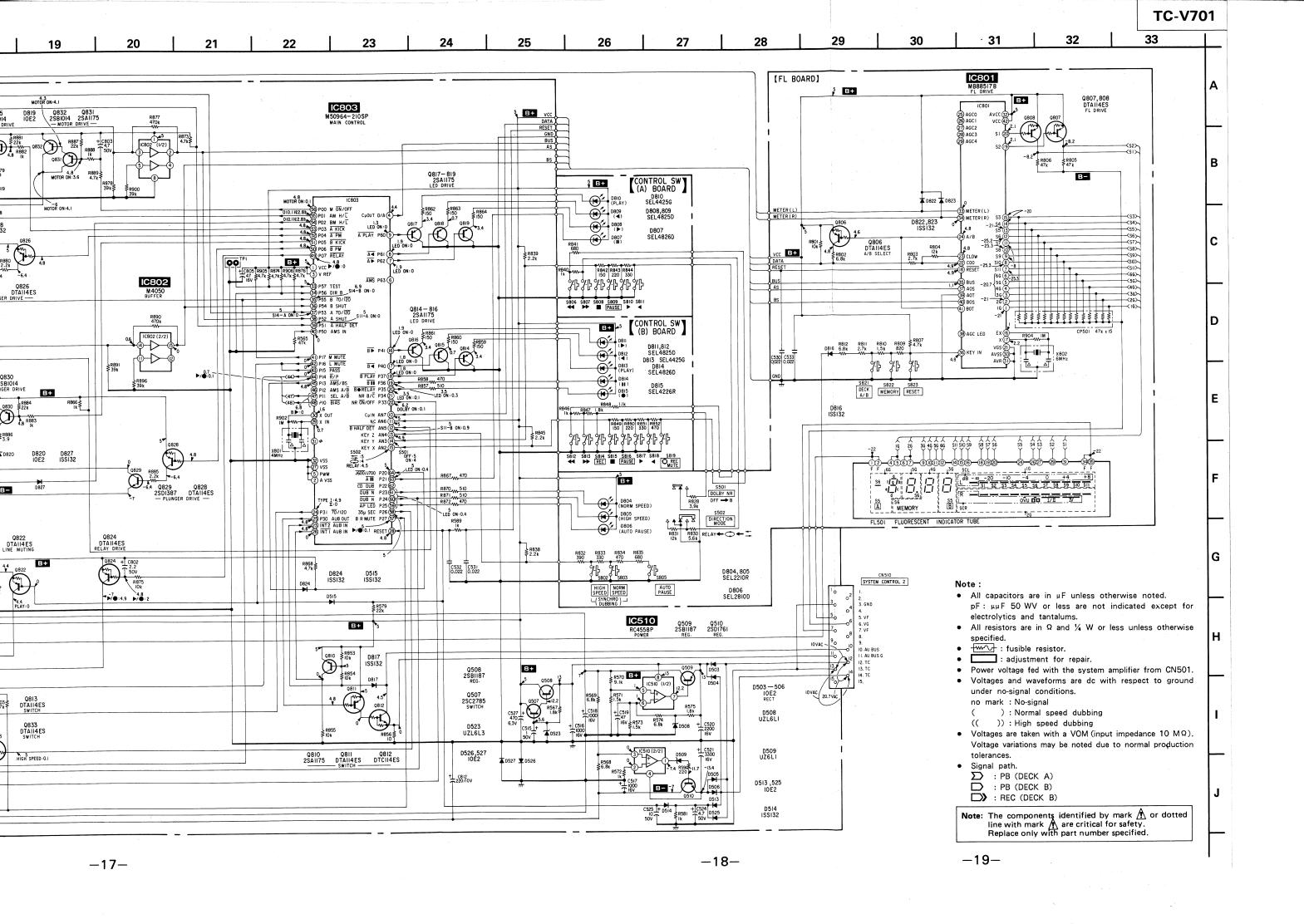




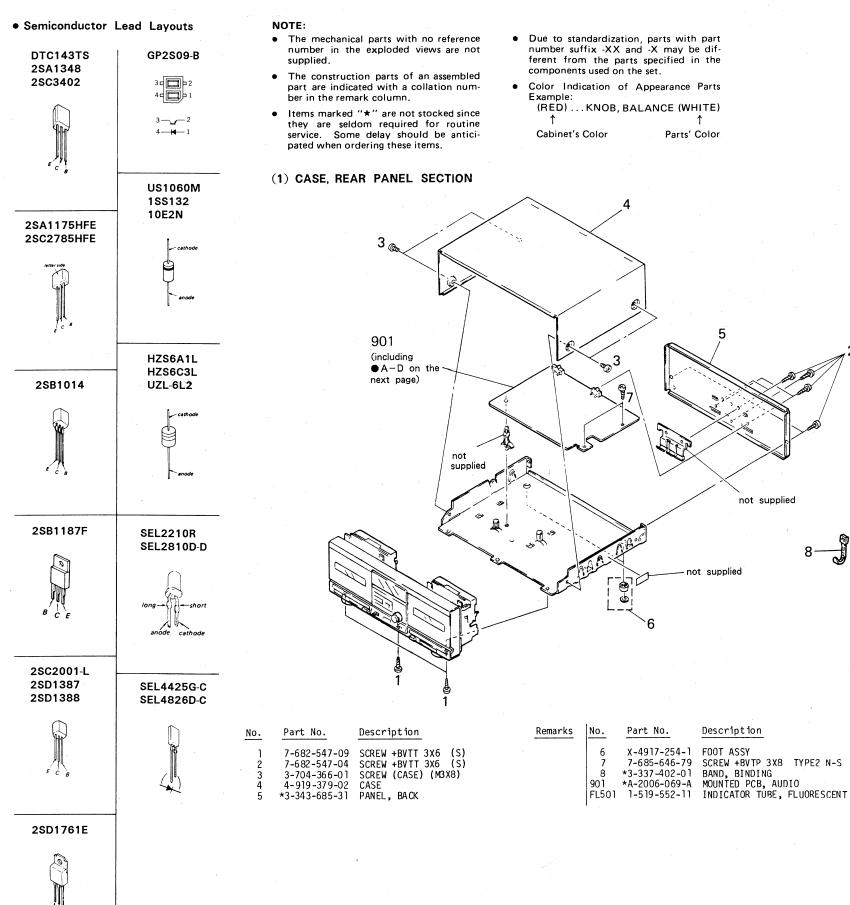








SECTION 6 EXPLODED VIEWS



B: Control Switch

● C : FL Board

● D : REC VOL Board

,		
0.	Part No.	Descri
51	3-343-686-51	LID, C.
52	3-343-686-41	LID, C.
53	3-343-633-01	KNOB (I
54	3-343-634-01	KNOB (I
55	X-3343-634-1	PANEL
56	3-343-688-01	SPRING
57	X-3343-628-1	HOLDER
58	3-343-687-01	SPRING
59	*3-340-123-01	RETAIN
60	*X-3343-624-1	BRACKE
61	7-624-105-04	STOP R
62	3-343-689-01	SPRING
63	*X-3343-625-1	BRACKE
64	X-3332-464-1	GEAR (

Remarks

EWS

art No.

Description

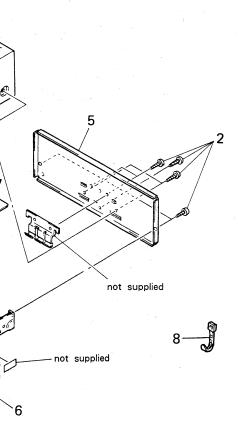
-4917-254-1 FOOT ASSY -685-646-79 SCREW +BVTP 3X8 TYPE2 N-S -337-402-01 BAND, BINDING -2006-069-A MOUNTED PCB, AUDIO -519-552-11 INDICATOR TUBE, FLUORESCENT Remarks

on, parts with part and -X may be difts specified in the the set.

Appearance Parts

ALANCE (WHITE)

Parts' Color

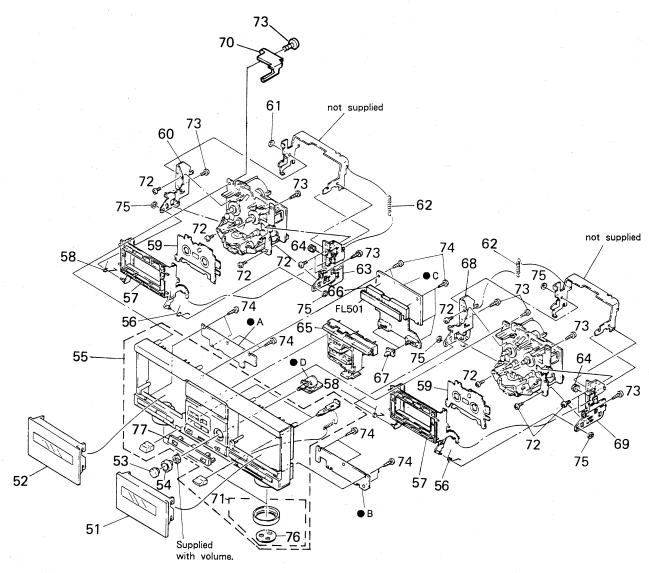


(2) FRONT PANEL SECTION

A: Control Switch (A) BoardB: Control Switch (B) Board

● C : FL Board

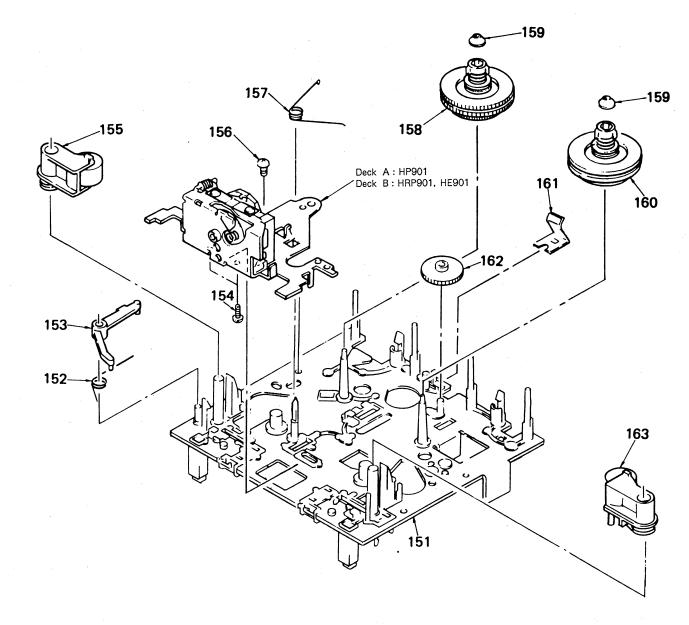
● D : REC VOL Board



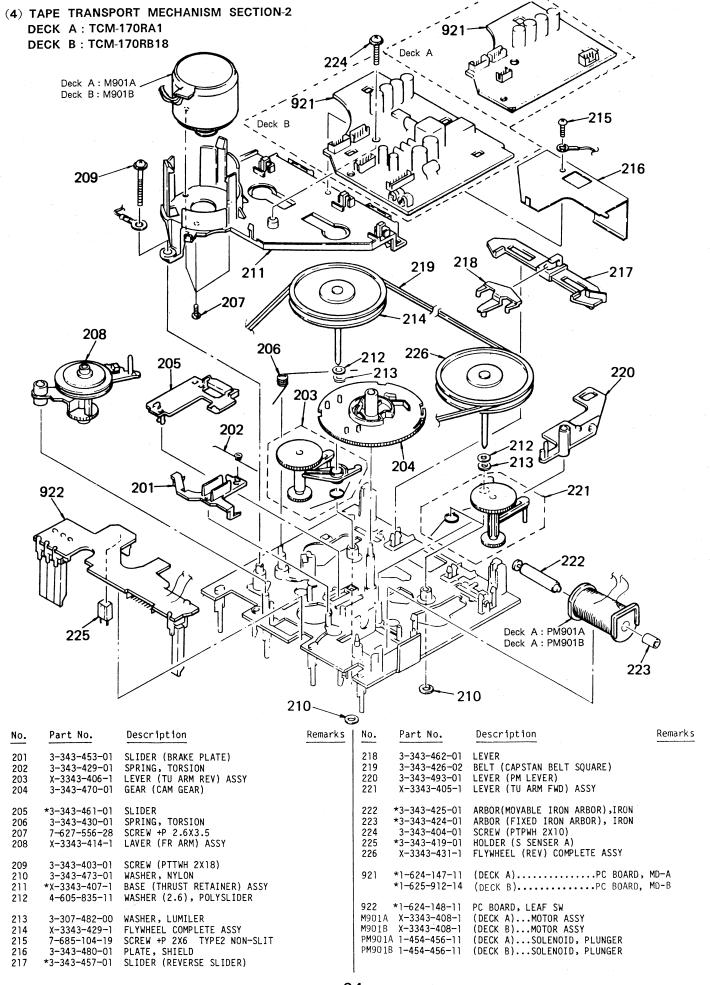
. ,							
No.	Part No.	Description	Remarks	No.	Part No.	Description	Remar
51	3-343-686-51	LID, CASSETTE (DECK B)		65	3-343-695-21	BUTTON (C)	
52	3-343-686-41	LID, CASSETTE (DECK A)		66	*3-350-116-02	HOLDER (FL)	
53	3-343-633-01	KNOB (R-21)		67	4-924-444-11	KNOB (TIMER)	
54	3-343-634-01	KNOB (L-23)		68	*X-3343-626-1	BRACKET (LB) ASSY	
55	X-3343-634-1	PANEL ASSY, FRONT	71,76,77	69	*X-3343-627-1	BRACKET (RB) ASSY	
56	3-343-688-01	SPRING (LOADING RIGHT)		70	*3-350-117-01	REINFORCEMENT (FP)	
57	X-3343-628-1	HOLDER ASSY, CASSETTE		71	X-4917-252 - 1	PLATE (LEG) ASSY, ORNAMENTAL	76
58	3-343-687-01	SPRING (LOADING LEFT)		72	7-62 1-770-87	SCREW +BVTT 2.6X5 (S)	
59	*3-340-123-01	RETAINER, CASSETTE					
60	+V 2242 C24 1	DOLONET (LA) ACCV		73	7-685-134-19	SCREW +P 2.6X8 TYPE2 NON-SLIT	
60	*X-3343-624-1	BRACKET (LA) ASSY		74	7-685-533-11	SCREW +BTP 2.6X6 TYPE2 N-S	
61 62	7-624-105-04 3-343-689-01	STOP RING 2.3, TYPE -E		75	7-624-190-31	STOP RING 4, TYPE-CS	
63	*X-3343-625-1	SPRING, TENSION		76	4-928-401-01	FELT	
64	X-3332-464-1	BRACKET (RA) ASSY		77	3-350-132-01	ESCUTCHEON	
. 04	X-3332-464-1	GEAR (DAMPER) ASSY		1			

(3) TAPE TRANSPORT MECHANISM SECTION-1

DECK A: TCM-170RA1 DECK B: TCM-170RB18



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
151 152 153 154 155 157 158	*3-343-476-01 7-685-102-19 X-3343-403-1 3-343-401-01	LEVER (EJECT SAFETY LEVER) SCREW +P 2X4 NON-SLIT TYPE 2 LEVER (PINCH LEVER REV) ASSY		161 162 163 HP901	X-3343-401-1 3-343-420-01 3-343-411-01 X-3343-402-1 A-2108-129-A	TABEL ASSY, REEL	



SECTION 7 ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS: MF: μF, PF: μμF.

RESISTORS

- All resistors are in ohms. F: nonflammable

COILS
• MMH: mH, UH: μH

SEMICONDUCTORS

In each case, U: μ, for example: UA...: μΑ..., UPA...: μPA..., UPC...: μPC, UPD...: μPD...

The components identified by mark A or dotted line with mark are critical for safety.

Replace only with part number specified.

Ref.No.	Part No.	Description					Ref.No.	Part No.	Description			
901	*A-2006-069-A	MOUNTED PCB,	AUDIO				C107	1-136-156-00	FILM	0.018MF	5%	50 V
921	*1-624-147-11 *1-625-912-14	(DECK A)P				erio Visita	C109 C1 18	1-136-175-00 1-124-927-11	FILM ELECT	0.68MF 4.7MF	5% 20%	50 V
922	*1-624-148-11	PC BOARD, LE	AF SW				C1 19 C121 C122	1-124-767-00 1-124-927-11 1-124-927-11	ELECT ELECT ELECT	2.2MF 4.7MF 4.7MF	20% 20% 20%	50V 50V 50V
C4 1A C4 1B	1-162-289-31 1-110-342-11	CERAMIC MYLAR	390PF 390PF	10% 5%	50V 50V		C123 C124	1-124-477-11 1-136-159-00	ELECT FILM	47MF 0.033MF	20% 5%	16V 50V
C42A C42B	1-136-157-00 1-136-157-00	FILM FILM	0.022MF 0.022MF	5% 5%	50V 50V		C125	1-130-483-00	MYLAR	0.01MF	5%	50V
C43A C43B	1-124-282 - 00 1-124-282-00	ELECT ELECT	22MF 22MF	20% 20%	25V 25V		C127 C128 C130	1-136-154-00 1-130-475-00 1-130-477-00	FILM MYLAR MYLAR	0.012MF 0.0022MF 0.0033MF	5% 5% 5%	50V 50V 50V
C4 4B C4 5B C4 7B	1-162-288-31 1-136-273-91 1-162-209-31	CERAMIC FILM CERAMIC	330PF 75PF 27PF	10% 5% 5%	50V 630V 50V		C132 C133 C135	1-130-483-00 1-130-471-00 1-136-156-00	MYLAR MYLAR FILM	0.01MF 0.001MF 0.018MF	5% 5% 5%	50V 50V 50V
C48A C48B	1-162-217-31 1-162-217-31	CERAMIC CERAMIC	56PF 56PF	5% 5%	50V 50V		C136 C138 C201	1-130-472-00 1-162-285-31 1-124-925-11	MYLAR CERAMIC ELECT	0.0012MF 180PF 2.2MF	5% 10% 20%	50V 50V 50V
C61A C61B	1-162-289-31 1-110-342-11	CERAMIC MYLAR	390PF 390PF	10% 5%	50V 50V		C202 C204	1-124-925-11	ELECT ELECT	2.2MF 2.2MF	20%	50V 50V
C62A C62B	1-136-157-00 1-136-157-00	FILM FILM	0.022MF 0.022MF	5% 5%	50V 50V		C206	1-124-927-11	ELECT	4.7MF	20%	500
C63A C63B	1-124-282-00 1-124-282-00	ELECT ELECT	22MF 22MF	20% 20%	25V 25V		C207 C209 C218	1-136-156-00 1-136-175-00 1-124-927-11	FILM FILM ELECT	0.018MF 0.68MF 4.7MF	5% 5% 20%	50V 50V 50V
C64B C65B C67B	1-162-288-31 1-136-273-91 1-162-209-31	CERAMIC FILM CERAMIC	330PF 75PF 27PF	10% 5% 5%	50V 630V 50V		C2 19 C2 2 1 C2 2 2	1-124-767-00 1-124-927-11 1-124-927-11	ELECT ELECT ELECT	2.2MF 4.7MF 4.7MF	20% 20% 20%	50V 50V 50V
C68A C68B	1-162-217-31 1-162-217-31	CERAMIC CERAMIC	56PF 56PF	5% 5%	50V 50V		C223 C224 C225	1-124-477-11 1-136-159-00 1-130-483-00	ELECT FILM MYLAR	47MF 0.033MF 0.01MF	20% 5% 5%	16V 50V 50V
C81A C81B	1-126-101-11 1-126-101-11	ELECT ELECT	100MF 100MF	20% 20%	16V 16V		C227 C228	1-136-154-00 1-130-475-00	FILM MYLAR	0.012MF 0.0022MF	5% 5%	50V 50V
C82A C82B	1-126-101-11 1-126-101-11	ELECT ELECT	100MF 100MF	20% 20%	16V 16V		C230	1-130-477-00	MYLAR	0.0033MF	5%	50 V
C83B C84B C85B	1-124-499-11 1-124-925-11 1-130-480-00	ELECT ELECT MYLAR	1MF 2.2MF 0.0056MF	20% 20% 5%	50V 50V 50V		C232 C233 C235	1-130-483-00 1-130-471-00 1-136-156-00	MYLAR MYLAR FILM	0.01MF 0.001MF 0.018MF	5% 5% 5%	50V 50V 50V
C86B C87B C88B	1-130-476-00 1-130-476-00 1-136-562-11	MYLAR MYLAR FILM	0.0027MF 0.0027MF 0.0082MF	5% 5% 5%	50V 50V 630V		C236 C238 C501	1-130-472-00 1-162-285-31 1-124-477-11	MYLAR CERAMIC ELECT	0.0012MF 180PF 47MF	5% 10% 20%	50V 50V 16V
C89B C90B C101	1-161-494-00 1-126-101-11 1-124-925-11	CERAMIC ELECT	0.022MF 100MF 2.2MF	20%	25V 16V 50V		C502 C505 C506	1-124-477-11 1-124-477-11 1-124-477-11	ELECT ELECT ELECT	47MF 47MF 47MF	20% 20% 20%	16V 16V 16V
C102 C104 C106	1-124-925-11 1-124-925-11 1-124-927-11	ELECT ELECT	2.2MF 2.2MF 4.7MF	20% 20% 20%	50V 50V 50V		C507 C508 C509	1-124-477-11 1-124-477-11 1-124-477-11	ELECT ELECT ELECT	47MF 47MF 47MF	20% 20% 20%	16V 16V 16V

Ref.No. Part No.	Description	Ref.No.	Part No.	Descript ion
C510 1-124-477-11 C515 1-124-499-11 C516 1-124-360-00	ELECT 1MF 20% 50V	D509 D513 D514	8-719-900-33 8-719-200-77 8-719-000-26	DIODE 10E2N
C517 1-124-360-00 C518 1-124-360-00 C519 1-124-477-11	ELECT 1000MF 20% 16V	D515 D520 D521	8-719-000-26 8-719-000-26 8-719-000-26	DIODE US1060M DIODE US1060M DIODE US1060M
C520 1-124-556-11 C521 1-124-887-00 C524 1-124-927-11		D522 D523 D525	8-719-000-26 8-719-000-51 8-719-200-77	DIODE US1060M DIODE UZL-6L2 DIODE 10E2N
C525 1-123-875-11 C526 1-124-925-11 C527 1-124-472-11	ELECT 10MF 20% 50V ELECT 2.2MF 20% 50V ELECT 470MF 20% 6.3V	D526 D527 D804	8-719-200-77 8-719-200-77 8-719-300-71	DIODE 10E2N DIODE 10E2N DIODE SEL2210R
C529 1-161-494-00 C530 1-161-494-00 C531 1-161-494-00	CERAMIC 0.022MF 25V	D805 D806 D807	8-719-300-71 8-719-311-61 8-719-312-29	DIODE SEL2210R DIODE SEL2810D-D DIODE SEL4826D-C
C532 1-161-494-00 C533 1-161-494-00 C801. 1-126-176-11	CERAMIC 0.022MF 25V CERAMIC 0.022MF 25V ELECT 220MF 20% 10V	D808 D809 D810	8-719-311-70 8-719-311-70 8-719-304-96	DIODE SEL4825D-C DIODE SEL4825D-C DIODE SEL4425G-C
C802 1-124-925-11 C803 1-124-927-11 C805 1-124-477-11 C812 1-126-176-11	ELECT 2.2MF 20% 50V ELECT 4.7MF 20% 50V ELECT 47MF 20% 16V ELECT 220MF 20% 10V	D811 D812 D813	8-719-311-70 8-719-311-70 8-719-304-96	DIODE SEL4825D-C DIODE SEL4825D-C DIODE SEL4425G-C
CN501 *1-564-340-00 CN502 *1-564-336-00 CN503 *1-564-342-11	PIN, CONNECTOR 6P PIN, CONNECTOR 2P PIN, CONNECTOR 8P	D814 D815 D816	8-719-312-29 8-719-312-30 8-719-000-26	DIODE SEL4826D-C DIODE SEL4226R-C DIODE US1060M
CN504 *1-564-338-00 CN505 *1-564-342-61 CN506 *1-564-341-71	PIN, CONNECTOR 4P PIN, CONNECTOR 8P PIN, CONNECTOR 7P	D817 D818 D819	8-719-000-26 8-719-200-77 8-719-200-77	DIODE TOE2N
CN507 *1-564-342-11 CN510 *1-566-859-11 CN511 *1-566-858-11	PIN, CONNECTOR 8P SOCKET, CONNECTOR 15P(SYSTEM CONTROL 2) SOCKET, CONNECTOR 11P(SYSTEM CONTROL 1)	D820 D822 D823	8-719-200-77 8-719-000-26 8-719-000-26	DIODE 10E2N DIODE US1060M DIODE US1060M
CNP11A*1-564-501-11 CNP11B*1-564-501-11	PIN, CONNECTOR 8P PIN, CONNECTOR 8P	D824 D827 D828	8-719-000-26 8-719-000-26 8-719-000-26	DIODE US1060M DIODE US1060M DIODE US1060M
CNP12A*1-564-337-00 CNP12B*1-564-337-61	PIN, CONNECTOR 3P PIN, CONNECTOR 3P	FL501	1-519-552-11	INDICATOR TUBE, FLUORESCENT
CNP13A*1-564-707-11 CNP13B*1-564-707-11	PIN, CONNECTOR (SMALL TYPE) 5P PIN, CONNECTOR (SMALL TYPE) 5P	HE90 1 HRP90 1	A-2108-130-A	(DECK B)CHASSIS ASSY, HEAD
CNP81A*1-564-706-11	PIN, CONNECTOR (SMALL TYPE) 4P	1 10		(DECK A)CHASSIS ASSY, HEAD
CNP81B*1-564-709-11 CNP82A*1-564-339-00	PIN, CONNECTOR (SMALL TYPE) 7P PIN, CONNECTOR 5P	IC81A IC81B	8-759-111-44 8-759-111-44	IC UPC4570C-1 IC UPC4570C-1
CNP82B*1-564-339-61	PIN, CONNECTOR 5P	I C504	8-759-601-02 8-759-601-02 8-759-040-53	IC M5218P IC M5218P IC MC14053BCP
CP501 1-233-167-11	医多性性 化二氯化二甲酚甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲基甲		8-752-031-67	IC CXA1 100P
D11A 8 8-719-107-94 D11B 8-8-719-107-94	DIODE 1SS132 DIODE 1SS132	I C507	8-759-601-02 8-759-601-23	IC M52 18P IC M4023BP
D81B 8-719-107-94 D101 8-719-000-26 D201 8-719-000-26	DIODE 1SS132 DIODE US1060M DIODE US1060M	I C801	8-759-983-68 8-759-601-38	IC RC4558P IC MB88517B-1023N IC M4050BP IC M50964-210SP
D502 8-719-933-41 D503 8-719-200-77 D504 8-719-200-77	DIODE HZS6C3L DIODE 10E2N DIODE 10E2N	L4 18 L618 L101		INDUCTOR 27MMH INDUCTOR 27MMH INDUCTOR 10MMH
D505 8-719-200-77 D506 8-719-200-77 D508 8-719-900-33	DIODE 10E2N DIODE 10E2N DIODE HZL-6L2	L 102 L201	1-410-775-21 1-410-775-21 1-410-775-21	INDUCTOR 10MMH INDUCTOR 10MMH INDUCTOR 10MMH

Ref.No.	Part No.	Description		Ref.No.	Part No.	Description			
		FILTER, LOW PASS FILTER, LOW PASS		Q818 Q819 Q822	8-729-119-76 8-729-119-76 8-729-806-10	TRANSISTOR 2 TRANSISTOR 2	SA1 175- SA1348	HFE HFE	
	X-3343-408-1 X-3343-408-1	(DECK A)MOTOR ASSY (DECK B)MOTOR ASSY		0824	8-729-806-10 8-729-802-22				
	1-454-456-11 1-454-456-11	(DECK A)SOLENOID, PLUNGER (DECK B)SOLENOID, PLUNGER		0826 0827	8-729-806-10	TRANSISTOR 2 TRANSISTOR 2	SA1348		
Q1 1A Q1 1B	8-729-119-76	TRANSISTOR 2SA1175-HFE TRANSISTOR 2SA1175-HFE		Q828 Q829 Q830	8-729-806-10 8-729-801-93 8-729-802-22		SD1387		
Q12A Q12B	8-719-939-23	?TRANSISTOR GP2S09-C ?TRANSISTOR GP2S09-C		0831 0832	8-729-119-76 8-729-802-22	TRANSISTOR 2	SB1014	HFE	
Q81B Q82B Q83B	8-729-111-29 8-729-100-12 8-729-100-12	TRANSISTOR 2SD1388 TRANSISTOR 2SC2001-L TRANSISTOR 2SC2001-L		Q833 R1 1B	8-729-806-10 1-247-834-11	TRANSISTOR 2	SA1348 1.3K	5%	1/4W
0108 0109	4 4 4	TRANSISTOR DTC143TS TRANSISTOR 2SC3402 TRANSISTOR DTC143TS		R12B R13B	1-249-414-11		560 300	5% 5%	1/4W 1/4W
Q110 Q111		TRANSISTOR 2502785_HEE		R14A R14B	1-249-408-11 1-249-408-11		180 180	5% 5%	1/4W 1/4W
Q1 12 Q113	8-729-119-78 8-729-119-78	TRANSISTOR 2SC2785-HFE TRANSISTOR 2SC2785-HFE		R17A R17B	1-249-437-11 1-249-437-11	CARBON CARBON	47K 47K	5% 5%	1/4W 1/4W
Q1 15 Q1 17 Q1 19	8-729-119-78 8-729-119-78 8-729-806-28	TRANSISTOR 2SC2785-HFE TRANSISTOR 2SC2785-HFE TRANSISTOR 2SC3402 TRANSISTOR DTC143TS TRANSISTOR 2SC3402 TRANSISTOR DTC143TS		R18A R18B	1-249-437-11 1-249-437-11		47K 47K	5% 5%	1/4W 1/4W
0208 0209	8-729-900-74 8-729-806-28	TRANSISTOR DTC143TS TRANSISTOR 2SC3402		R4 1A R4 1B	1-247-881-00 1-247-881-00	CARBON CARBON	120K 120K	5% 5%	1/4W 1/4W
Q210 Q211	0-723-300-74	TRANSISTOR DICHSIS		R42A R42B	1-249-405-11 1-249-405-11		100 100	5% 5%	1/4W 1/4W
0212 0213	8-729-119-78 8-729-119-78	TRANSISTOR 2SC2785-HFE TRANSISTOR 2SC2785-HFE TRANSISTOR 2SC2785-HFE		R43A R43B	1-247-882-11 1-247-882-11		130K 130K	5% 5%	1/4W 1/4W
Q2 15 Q2 17 Q2 19		TRANSISTOR 2SC2785-HFE TRANSISTOR 2SC2785-HFE TRANSISTOR 2SC3402	A	R44A R44B	1-249-426-11 1-249-426-11		5.6K 5.6K		1/4W 1/4W
Q501	8-729-806-10	TRANSISTOR 2SAT348		R45B	1-249-430-11	CARBON	12K	5%	1/4W
0502 0503	8-729-806-10 8-729-806-10	TRANSISTOR 2SA1348 TRANSISTOR 2SA1348		R61A R61B	1-247-881-00 1-247-881-00		120K 120K	5% 5%	1/4W 1/4W
Q504 Q507 Q508	8-729-806-10 8-729-119-78 8-729-920-91	TRANSISTOR 2SA1348 TRANSISTOR 2SC2785-HFE TRANSISTOR 2SB1187-F		R62A R62B	1-249-405-11 1-249-405-11		100 100	5% 5%	1/4W 1/4W
Q509 Q510	8-729-920-91 8-729-808-76	TRANSISTOR 2SB1187-F TRANSISTOR 2SD1761-E		R63A R63B	1-247-882-11 1-247-882-11		130K 130K		1/4W 1/4W
Q515 Q516	8-729-806-10 8-729-806-28	TRANSISTOR 2SA1348 TRANSISTOR 2SC3402		R64A R64B	1-249-426-11 1-249-426-11	CARBON CARBON	5.6K 5.6K		1/4W 1/4W
Q517 Q518	8-729-119-76 8-729-806-28	TRANSISTOR 2SA1175-HFE TRANSISTOR 2SC3402		R65B	1-249-430-11		12K	5%	1/4W
Q5 19 Q806 Q80 <i>7</i>	8-729-119-76 8-729-806-10 8-729-806-10	TRANSISTOR 2SA1348		R81A R81B	1-249-409-11 1-249-409-11	CARBON CARBON	220 220	5% 5%	1/4W 1/4W
Q808	0.700.006.10	TRANSTETOR OCAROAO		R82A R82B	1-249-409-11 1-249-409-11	CARBON CARBON	220 220	5% 5%	1/4W 1/4W
Q810 Q811		TRANSISTOR 2SA1348 TRANSISTOR 2SA1375-HFE TRANSISTOR 2SA1348		R83B R84B <u>A</u> R85B	1-249-429-11 1-212-849-00 1-249-435-11	CARBON FUSIBLE CARBON	10K 4.7 33K	5% 5% 5%	1/4W 1/4W F 1/4W
Q812 Q813 Q814	8-729-806-28 8-729-806-10 8-729-119-76	TRANSISTOR 25C3402 TRANSISTOR 25A1348 TRANSISTOR 25A1175-HFE		R86B R101	1-249-435-11 1-249-417-11	CARBON CARBON	33K 1K	5% 5%	1/4W 1/4W
Q815 Q816	8-729-119-76 8-729-119-76	TRANSISTOR 2SAl 175-HFE TRANSISTOR 2SAl 175-HFE TRANSISTOR 2SAl 175-HFE		R102	1-249-436-11	CARBON CARBON	39K 100K	5% 5%	1/4W
Q817	8-729-119-76	TRANSISTOR 2SAT175-HFE	28.00 28.00	R104 R105		CARBON	22K 22K	5% 5%	1/4W 1/4W

Note: The components identified by mark A or dotted line with mark A are critical for safety.

Replace only with part number specified.

Ref.No.	Part No.	Description					Ref.No.	Part No.	Description			
R106	1-249-433-11	CARBON	22K	5%	1/4W		R239	1-249-429-11	CARBON	10K	5%	1/4W
R112	1-249-423-11	CARBON	3.3K	5%	1/4W		R240	1-249-421-11	CARBON	2.2K	5%	1/4W
R113	1-249-436-11	CARBON	39K	5%	1/4W		R241	1-249-441-11	CARBON	100K	5%	1/4W
R119	1-249-429-11	CARBON	10K	5%	1/4W		R242	1-247-887-00	CARBON	220K	5%	1/4W
R120	1-249-421-11	CARBON	2.2K	5%	1/4W		R243	1-249-421-11	CARBON	2.2K	5%	1/4W
R122	1-249-436-11	CARBON	39K	5%	1/4W		R244	1-249-437-11	CARBON	47K	5%	1/4W
R123	1-249-429-11	CARBON	10K	5%	1/4W		R245	1-249-437-11	CARBON	47K	5%	1/4W
R124	1-249-437-11	CARBON	47K	5%	1/4W		R246	1-249-409-11	CARBON	220	5%	1/4W
R125	1-249-429-11	CARBON	10K	5%	1/4W		R247	1-249-427-11	CARBON	6.8K	5%	1/4W
R126	1-249-397-11	CARBON	22	5%	1/4W		R248	1-247-848-11	CARBON	5.1K	5%	1/4W
R128	1-247-887-00	CARBON	220K	5%	1/4W		R251	1-249-441-11	CARBON	100K	5%	1/4W
R129	1-249-424-11	CARBON	3.9K	5%	1/4W		R252	1-249-407-11	CARBON	150	5%	1/4W
R130	1-249-423-11	CARBON	3.3K	5%	1/4W		R253	1-249-417-11	CARBON	1K	5%	7/4W
R138	1-249-429-11	CARBON	10K	5%	1/4W		R254	1-249-426-11	CARBON	5.6K	5%	1/4W
R139	1-249-429-11	CARBON	10K	5%	1/4W		R257	1-249-441-11	CARBON	100K	5%	1/4W
R140 R141 R142	1-249-421-11 1-249-441-11 1-247-887-00	CARBON CARBON CARBON	2.2K 100K 220K	5% 5% 5%	1/4W 1/4W 1/4W	14. 14.	R258 R259 R260	1-249-421-11 1-249-437-11 1-249-437-11	CARBON CARBON CARBON	2.2K 47K 47K	5% 5% 5%	1/4W 1/4W 1/4W
R143	1-249-421-11	CARBON	2.2K	5%	1/4W		R262	1-249-425-11	CARBON	4.7K	5%	1/4W
R144	1-249-437-11	CARBON	47K	5%	1/4W		R264	1-249-437-11	CARBON	47K	5%	1/4W
R145	1-249-437-11	CARBON	47K	5%	1/4W		R267	1-247-840-00	CARBON	2.4K	5%	1/4W
R146	1-249-409-11	CARBON	220	5%	1/4W		R268	1-247-887-00	CARBON	220K	5%	1/4W
R147	1-249-427-11	CARBON	6.8K	5%	1/4W		R270	1-249-438-11	CARBON	56K	5%	1/4W
R148	1-247-848-11	CARBON	5.1K	5%	1/4W		R271	1-249-437-11	CARBON	47K	5%	1/4W
R 151	1-249-441-11	CARBON	100K	5%	1/4W		R502	1-249-429-11	CARBON	10K	5%	1/4W
R 152	1-249-407-11	CARBON	150	5%	1/4W		R503	1-249-437-11	CARBON	47K	5%	1/4W
R 153	1-249-417-11	CARBON	1K	5%	1/4W		R504	1-215-460-00	METAL	43K	1%	1/6W
R154	1-249-426-11	CARBON	5.6K	5%	1/4W		R505	1-249-405-11	CARBON	100	5%	1/4W
R157	1-249-441-11	CARBON	100K	5%	1/4W		R506	1-249-405-11	CARBON	100	5%	1/4W
R158	1-249-421-11	CARBON	2.2K	5%	1/4W		R508	1-249-437-11	CARBON	47K	5%	1/4W
R 159	1-249-437-11	CARBON	47K	5%	1/4W		R509	1-249-425-11	CARBON	4.7K	5%	1/4W
R 160	1-249-437-11	CARBON	47K	5%	1/4W		R510	1-249-441-11	CARBON	10.0K	5%	1/4W
R 162	1-249-425-11	CARBON	4.7K	5%	1/4W		R511	1-249-429-11	CARBON	10K	5%	1/4W
R164	1-249-437-11	CARBON	47K	5%	1/4W		R512	1-249-411-11	CARBON	330	5%	1/4W
R167	1-247-840-00	CARBON	2.4K	5%	1/4W		R513	1-247-844-11	CARBON	3.6K	5%	1/4W
R168	1-247-887-00	CARBON	220K	5%	1/4W		R514	1-249-429-11	CARBON	10K	5%	1/4W
R 170	1-249-438-11	CARBON	56K	5%	1/4W		R5 15	1-249-421-11	CARBON	2.2K	5%	1/4W
R 171	1-249-437-11	CARBON	47K	5%	1/4W		R5 52	1-249-425-11	CARBON	4.7K	5%	1/4W
R201	1-249-417-11	CARBON	1K	5%	1/4W		R5 65	1-249-437-11	CARBON	47K	5%	1/4W
R202 R203 R204	1-249-436-11 1-249-441-11 1-249-433-11	CARBON CARBON CARBON	39K 100K 22K	5% 5% 5%	1/4W 1/4W 1/4W		R567 R568 R569	1-249-420-11 1-249-427-11 1-249-427-11		1.8K 6.8K 6.8K	5%	1/4W 1/4W 1/4W
R205 R206 R212	1-249-433-11 1-249-433-11 1-249-423-11	CARBON CARBON CARBON	22K 22K 3.3K	5% 5% 5%	1/4W 1/4W 1/4W		R570 R571 R572	1-247-854-17 1-249-419-11 1-249-417-11	CARBON CARBON CARBON	9.1K 1.5K 1K		1/4W 1/4W 1/4W
R213	1-249-436-11	CARBON	39K	5%	1/4W		R573	1-249 -4 19 - 11	CARBON	1.5K	5%	1/4W
R219	1-249-429-11	CARBON	10K	5%	1/4W		R574	1-249 -4 27 - 11	CARBON	6.8K	5%	1/4W
R220	1-249-421-11	CARBON	2.2K	5%	1/4W		R575	1-249 -4 20 - 11	CARBON	1.8K	5%	1/4W
R222	1-249-436-11	CARBON	39K	5%	1/4W		R579	1-249-433-11	CARBON	22K	5%	1/4W
R223	1-249-429-11	CARBON	10K	5%	1/4W		R581	1-249-417-11	CARBON	1K	5%	1/4W
R224	1-249-437-11	CARBON	47K	5%	1/4W		R582	1-249-425-11	CARBON	4.7K	5%	1/4W
R225	1-249-429-11	CARBON	10K	5%	1/4W	1. 1.	R585	1-249-421-11	CARBON	2.2K	5%	1/4W
R226	1-249-397-11	CARBON	22	5%	1/4W		R586	1-249-425-11	CARBON	4.7K	5%	1/4W
R228	1-247-887-00	CARBON	220K	5%	1/4W		R587	1-247-887-00	CARBON	220K	5%	1/4W
R229 R230 R238	1-249-424-11 1-249-423-11 1-249-429-11	CARBON CARBON CARBON	3.9K 3.3K 10K		1/4W 1/4W 1/4W		R588 R589 R590	1-249-439-11 1-249-417-11 1-249-409-11	CARBON CARBON CARBON	68K 1K 220	5% 5% 5%	1/4W 1/4W 1/4W

Ref.No.	Part No.	Description				Ref.No.	Part No.	Description		
R591	1-249-409-11	CARBON	220	5%	1/4W	R864	1-249-407-11	CARBON	150 5%	1/4W
R801	1-249-429-11	CARBON	10K	5%	1/4W	R866	1-249-417-11	CARBON	1K 5%	1/4W
R802	1-249-427-11	CARBON	6.8K	5%	1/4W	R867	1-249-413-11	CARBON	470 5%	1/4W
R803	1-249-422-11	CARBON	2.7K	5%	1/4W	R868	1-249-425-11	CARBON	4.7K 5%	1/4W
R804	1-249-430-11	CARBON	12K	5%	1/4W	R870	1-249-442-11	CARBON	510 5%	1/4W
R805	1-249-437-11	CARBON	47K	5%	1/4W	R871	1-249-442-11	CARBON	510 5%	1/4W
R806	1-249-437-11	CARBON	47K	5%	1/4W	R872	1-249-413-11	CARBON	470 5%	1/4W
R807	1-249-425-11		4.7K	5%	1/4W	R873	1-249-425-11	CARBON	4.7K 5%	1/4W
R809	1-249-416-11		820	5%	1/4W	R874	1-249-425-11	CARBON	4.7K 5%	1/4W
R810	1-249-419-11	CARBON	1.5K	5%	1/4W	R875	1-249-429-11	CARBON	10K 5%	1/4W
R811	1-249-422-11	CARBON	2.7K	5%	1/4W	R876	1-249-425-11	CARBON	4.7K 5%	1/4W
R812	1-249-427-11	CARBON	6.8K	5%	1/4W	R877	1-247-895-00	CARBON	470K 5%	1/4W
R828	1-249-424-11	CARBON	3.9K	5%	1/4W	R878	1-249-436-11	CARBON	39K 5%	1/4W
R830	1-249-426-11	CARBON	5.6K	5%	1/4W	R879	1-249-388-11	CARBON	3.9 5%	1/4W
R831	1-249-430-11	CARBON	12K	5%	1/4W	R880	1-249-421-11	CARBON	2.2K 5%	1/4W
R832	1-249-412-11	CARBON	390	5%	1/4W	R881	1-249-433-11	CARBON	22K 5%	1/4W
R833	1-249-411-11	CARBON	330	5%	1/4W	R882	1-249-417-11	CARBON	1K 5%	1/4W
R834	1-249-413-11	CARBON	470	5%	1/4W	R883	1-249-417-11	CARBON	1K 5%	1/4W
R835	1-249-415-11	CARBON	680	5%	1/4W	R884	1-249-433-11	CARBON	22K 5%	1/4W
R838	1-249-421-11	CARBON	2.2K	5%	1/4W	R885	1-249-421-11	CARBON	2.2K 5%	1/4W
R839	1-249-421-11	CARBON	2.2K	5%	1/4W	R886	1-249-388-11	CARBON	3.9 5%	1/4W
R840	1-249-417-11	CARBON	1K	5%	1/4W	R887	1-249-433-11	CARBON	22K 5%	1/4W
R841	1-249-415-11	CARBON	680	5%	1/4W	R888	1-249-417-11	CARBON	7K 5%	1/4W
R842	1-249-407-11	CARBON	150	5%	1/4W	R889	1-249-425-11	CARBON	4.7K 5%	1/4W
R843	1-249-409-11	CARBON	220	5%	1/4W	R890	1-247-895-00	CARBON	470K 5%	1/4W
R844	1-249-411-11	CARBON	330	5%	1/4W	R891	1-249-436-11	CARBON	39K 5%	1/4W
R845	1-249-421-11	CARBON	2.2K	5%	1/4W	R896	1-249-436-11	CARBON	39K 5%	1/4W
R846	1-249-417-11	CARBON	1K	5%	1/4W	R900	1-249-436-11	CARBON	39K 5%	1/4W
R847	1-249-420-11	CARBON	1.8K	5%	1/4W	R902	1-247-903-00	CARBON	1M 5%	1/4W
R848	1-247-832-11	CARBON	1.1K	5%	1/4W	R903	1-249-425-11	CARBON	4.7K 5%	1/4W
R849	1-249-407-11	CARBON	150	5%	1/4W	R904	1-247-903-00	CARBON	1M 5%	1/4W
R850	1-249-409-11	CARBON	220	5%	1/4W	R905	1-249-425-11	CARBON	4.7K 5%	1/4W
R851	1-249-411-11	CARBON	330	5%	1/4W	R906	1-249-425-11	CARBON	4.7K 5%	1/4W
R852 R853 R854	1-249-413-11 1-249-429-11 1-249-429-11	CARBON CARBON CARBON	470 10K 10K	5% 5% 5%	1/4W 1/4W 1/4W	RV4 1A RV4 1B	1-228-989-00 1-228-989-00	RES, ADJ, CAR RES, ADJ, CAR	RBON 470 RBON 470	
R855	1-249-429-11	CARBON	10K	5%	7/4W	RV4 2B	1-230-500-11	RES, ADJ, CAR	RBON 220K	
R856 R857	1-249-393-11 1-249-442-11	CARBON CARBON	10 5 10	5 % 5%	1/4W 1/4W	RV61A RV61B	1-228-989-00 1-228-989-00	RES, ADJ, CAR RES, ADJ, CAR		
R858 R859	1-249-413-11 1-249-407-11	CARBON CARBON	470 150	5% 5%	1/4W 1/4W	RV62B	1-230-500-11	RES, ADJ, CAR	RBON 220K	
R860	1-249-407-11	CARBON	150	5%	1/4W	RV 102 RV202	1-228-994-00 1-228-994-00	RES, ADJ, CAR RES, ADJ, CAR	RBON JOK	
R861 R862 R863	1-249-407-11 1-249-407-11 1-249-407-11	CARBON	150 150 150	5% 5% 5%	1/4W 1/4W 1/4W	RV501 RY81B	1-238-300-11 1-515-614-11	RES, VAR, CAF	RBON 10K/10K	(REC LEVEL)

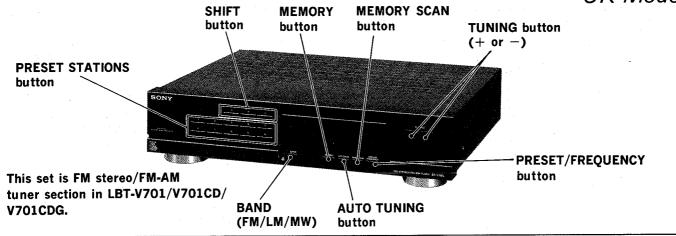
Ref.No.	Part No.	Description
	1-571-281-21 1-571-281-21	SWITCH, LEAF (HALF DET) SWITCH, LEAF (HALF DET)
	1-571-281-21 1-571-281-21	SWITCH, LEAF (SIDE A ERASE PROOF) SWITCH, LEAF (SIDE B ERASE PROOF)
S14A S14B	1-571-281-21 1-571-281-21	SWITCH, LEAF (CrO2) SWITCH, LEAF (CrO2)
S501 S502 S802	1-570-974-11 1-571-520-21 1-554-303-21	SWITCH, SLIDE (DOLBY NR) SWITCH, SLIDE (DIRECTION MODE) SWITCH, KEY BOARD (HIGH SPEED)
	1-554-303-21 1-554-303-21	SWITCH, KEY BOARD (NORMAL SPEED) SWITCH, KEY BOARD (AUTO PAUSE)
\$806 \$807 \$808	1-554-303-21 1-554-303-21 1-554-303-21	SWITCH, KEY BOARD (DECK A: ◄) SWITCH, KEY BOARD (DECK A: ▶) SWITCH, KEY BOARD (DECK A: ■)
\$809 \$810 \$811	1-554-303-21	SWITCH, KEY BOARD (DECK A PAUSE) SWITCH, KEY BOARD (DECK A: ▶) SWITCH, KEY BOARD (DECK A: ◀)
\$812 \$813 \$814 \$815	1-554-303-21 1-554-303-21 1-554-303-21 1-554-303-21	SWITCH, KEY BOARD (DECK B: ◀◀) SWITCH, KEY BOARD (DECK B: ▶►) SWITCH, KEY BOARD (DECK B REC) SWITCH, KEY BOARD (DECK B: ■)
S816 S817 S818 S819	1-554-303-21 1-554-303-21	SWITCH, KEY BOARD (DECK B PAUSE) SWITCH, KEY BOARD (DECK B: ▶) SWITCH, KEY BOARD (DECK B: ◀) SWITCH, KEY BOARD (DECK B REC MUTE)
\$821 \$822 \$823	1-554-303-21 1-554-303-21 1-554-303-21	SWITCH, KEY BOARD (DECK A/B) SWITCH, KEY BOARD (MEMORY) SWITCH, KEY BOARD (RESET)
T81B	1-433-337-11	TRANSFORMER, BIAS OSCILLATION
TP1	*1-564-336-00	PIN, CONNECTOR 2P
X801 X802	1-577-358-21 1-577-360-11	VIBRATOR, CERAMIC 4MHz VIBRATOR, CERAMIC 6MHz

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ST-V701L

SERVICE MANUAL

AEP Model UK Model



SPECIFICATIONS

Tuner

System

FM stereo, FM/AM Superheterodyne tuner

FM tuner section

Tuning range

87.5 to 108 MHz

Antenna terminals

Intermediate

75 ohms unbalanced

frequency 10.7 MHz

MW/LW tuner section

	MW	LW					
Tuning range	522 to 1,611 kHz (Italian model) 531 to 1,602 kHz (AEP, UK, West Germany model)	144 to 288 kHz (Italian model) 153 to 281 kHz (AEP, UK, West Germany model)					
Antenna	331.131,1321						
Intermediate frequency	450 kHz	450 kHz					

Dimensions

Approx. 355 × 82 × 320 mm (w/h/d)

 (14×3^{1}) , $\times 12^{5}$, inches)

Incl. projecting parts and controls

Weight Approx. 1.9 kg (4 lb 3 oz)

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK A OR DOTTED LINE WITH MARK A ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

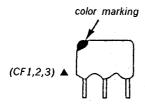


FM STEREO/FM-AM TUNER
SONY®

SECTION 1 SERVICING NOTES

Note on Ceramic Filter (CF1,2,3) ▲ Replacement.

This set employs three ceramic filters (CF1,2,3) \blacktriangle which should have the same color marking to identify their center frequency. Therefore FM IF offset adjustment by * D613, * D614 is necessary to match the center frequency of the ceramic filters used with FM intermediate frequency.



○ : Mounted× : not Mounted

Ce	ramic filter	Мо	unt	FM intermediate		
Color mark	Center frequency (MHz)	* D613	* D614	frequency (MHz)		
White	10.750	×	0	10.750		
Red	10.700	×	×	10.700		
Black	10.650	0	×	10.650		

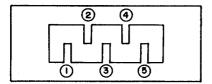
FM intermediate frequency is determined by the three types as shown above, Ceramic filters of same center frequency,i.e., of same color coding should be used for CF1, CF2, and CF3.

When replacing the ceramic filters, perform the FM Discriminator Adjustment.

▲ : AEP, UK Model : CF1, 2 WG, IT Model : CF1, 2, 3

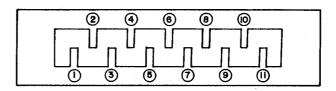
Signal of System Control Connector

CNJ702 SYSTEM CONTROL 1



1	L-CH OUT
2	NC
3	R-CH OUT
4	GND
5	NC

CNJ701 SYSTEM CONTROL 2



	1	NC	7	VF
ſ	2	NC	8	AC
	3	GND	9	AC
	4	REMOTE	10	NC
Γ	5	VF	11	NC
	6	VG(-24V)		

ST-V701L

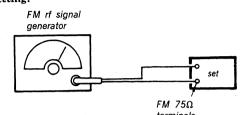
CNJ7021: L-CH

3: R-CH

SECTION 2 ELECTRICAL ADJUSTMENTS

FM SECTION

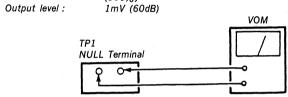
FM DISCRIMINATOR ADJUSTMENT Setting:



Carrier frequency: Modulation:

98MHz 1kHz, 40kHz deviation

(100%) 1mV (60dB)

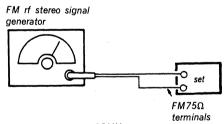


Procedure:

- 1. Tune the set to 98MHz.
- 2. Adjust T21 for 0V reading on the VOM.

Note: FM tuning level adjustment should be made after FM discriminator alignment.

FM TUNING LEVEL ADJUSTMENT Setting:



Carrier frequency: Modulation:

98MHz

1kHz, 40kHz deviation (100%) 17.8µV (25dB)

Output level: Procedure:

- 1. Tune the set to 98MHz.
- 2. Adjust RV24 so that the TUNED LED goes on.

FM STEREO SEPARATION ADJUSTMENT

Procedure: FM rf stereo signal VTVM generator FM75Ω OUTPUT

Carrier frequency: Output level: Modulation Audio 400Hz: 98MHz 1mV (60dB)

16.25kHz deviation Sub channel 38kHz: 16.25kHz deviation Pilot signal 19kHz: 7.5kHz deviation

FM stereo signal generator output channel	VTVM connection	VTVM reading (dB)
L-CH	L-CH	A
R-CH	L-CH	® Adjust RV21 for minimum reading.
R-CH	R-CH	©
L-CH	R-CH	© Adjust RV21 for minimum reading.

L-CH Stereo separation: A-B R-CH Stereo separation: ©-®

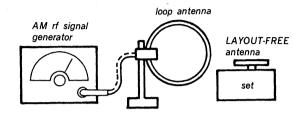
The separations of both channels should be equal.

MW/LW SECTION

AM TUNING LEVEL ADJUSTMENT

BAND select switch: LW

Setting:



Carrier frequency: Modulation :

216kHz

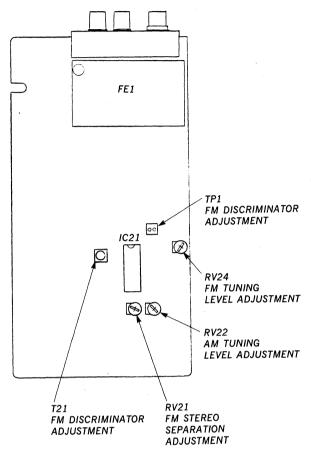
400Hz, 30% modulation

Procedure:

- 1. Set loop antenna so that the LAYOUT-FREE antenna input level becomes 2.5mV/m (68dB).
- 2. Tune the set to 216kHz.
- 3. Adjust the RV22 so that the TUNED LED goes on.

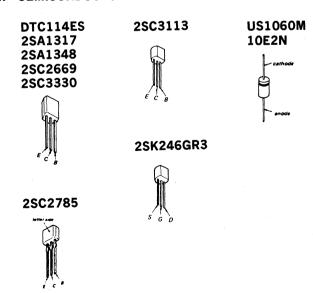
Adjustment Location:

-tuner board-



SECTION 3 DIAGRAMS

3-1. SEMICONDUCTOR LEAD LAYOUTS

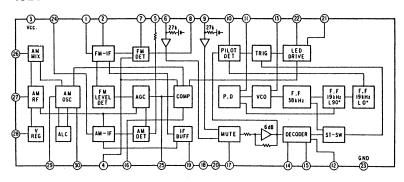


ST-V701L

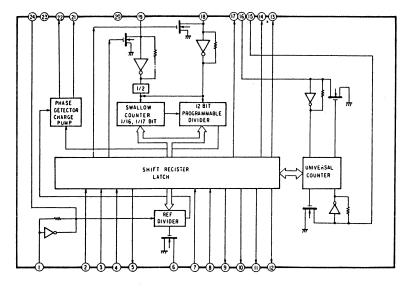
ST-V701L

3-2. IC BLOCK DIAGRAMS

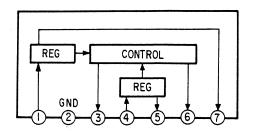
IC21 LA1851N



IC81 LC7218



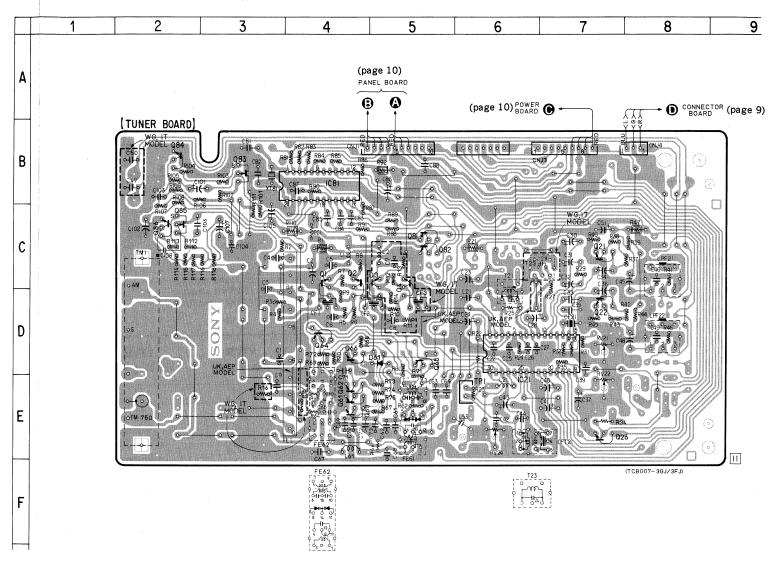
IC701 LA5667



3-3. TUNER SECTION PRINTED WIRING BOARD

Semiconductor Location

Ref. No.	Location
D61	D-5
IC21	D-6
IC81	B-4
Q1	C-4
Q2	C-4
Q3	C-5
Q4	C-5
Q21	C-7
Q22	D-7
Q26	E-7
Q61	E-4
Q62	E-4
Q63	E-4
Q64	D-4
Q65	D-5
Q66	D-4
Q81	C-5
Q82	C-5
Q83	B-3
Q84	B-2
Q85	C-2
Q86	C-2



Note on Printed Wiring Board

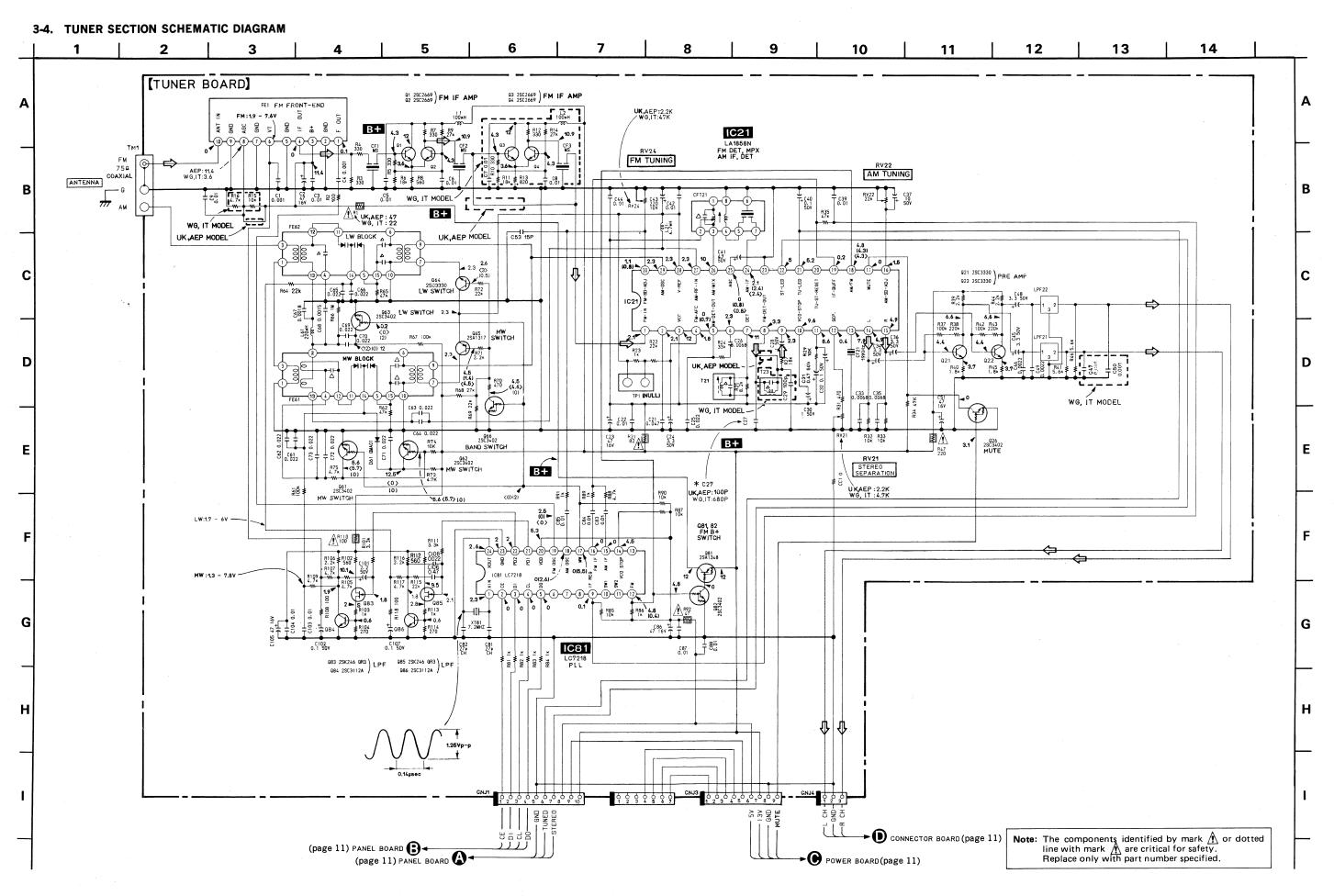
- o---: parts extracted from the component side.
- : parts mounted on the conductor side.
- []— indicates side identified with part number.
- WG: West Germany model
- IT: Italian model

● Note on Schematie Digmam

- * D613, * D614: See page 2 for Note on Ceramic Filter (CF1, 2, 3) ▲ Replacement.
- All capacitors are in μF unless otherwise noted. pF: $\mu \mu F$ 50WV or less are not indicated except for electrolytics and tantalums.
- \bullet All resistors are in Ω and $1/\!/_4\,W$ or less unless otherwise specified.
- : nonflammable resistor.
- B+ : B+ Line
- B= : B- Line
- adjustment for repair.
- Power voltage is supply from TA-818.
- Voltage and waveforms are dc with respect to ground under no-signal (detuned) conditions.
- no mark : FM
- ():AM < >:LW
- Voltages are taken with a VOM (Input impedance $10M\,\Omega$). Voltage variations may be noted due to normal production tolerances.
- Signal path.
 - ⇒ : FM

• WG: West Germany model

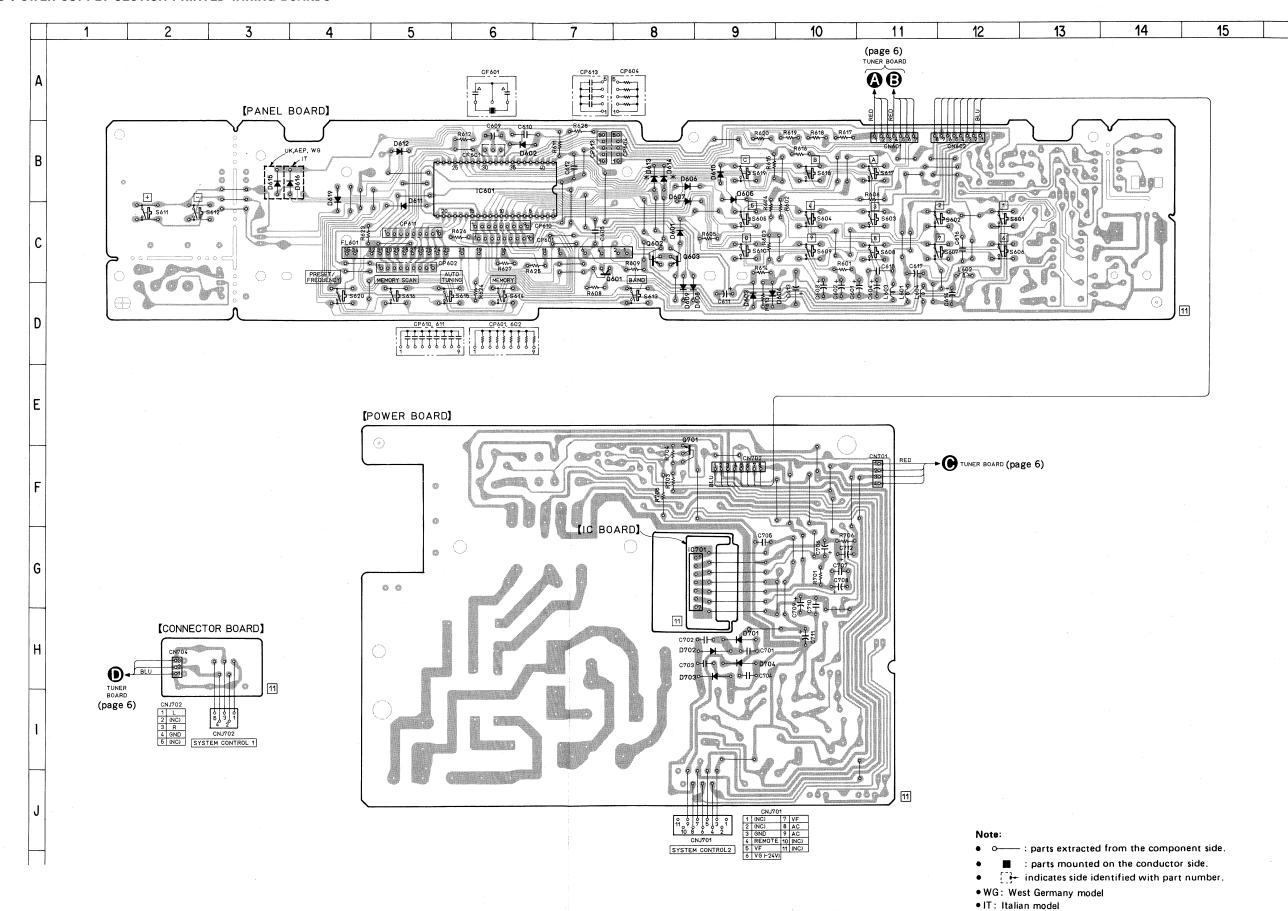
•IT : Italian model

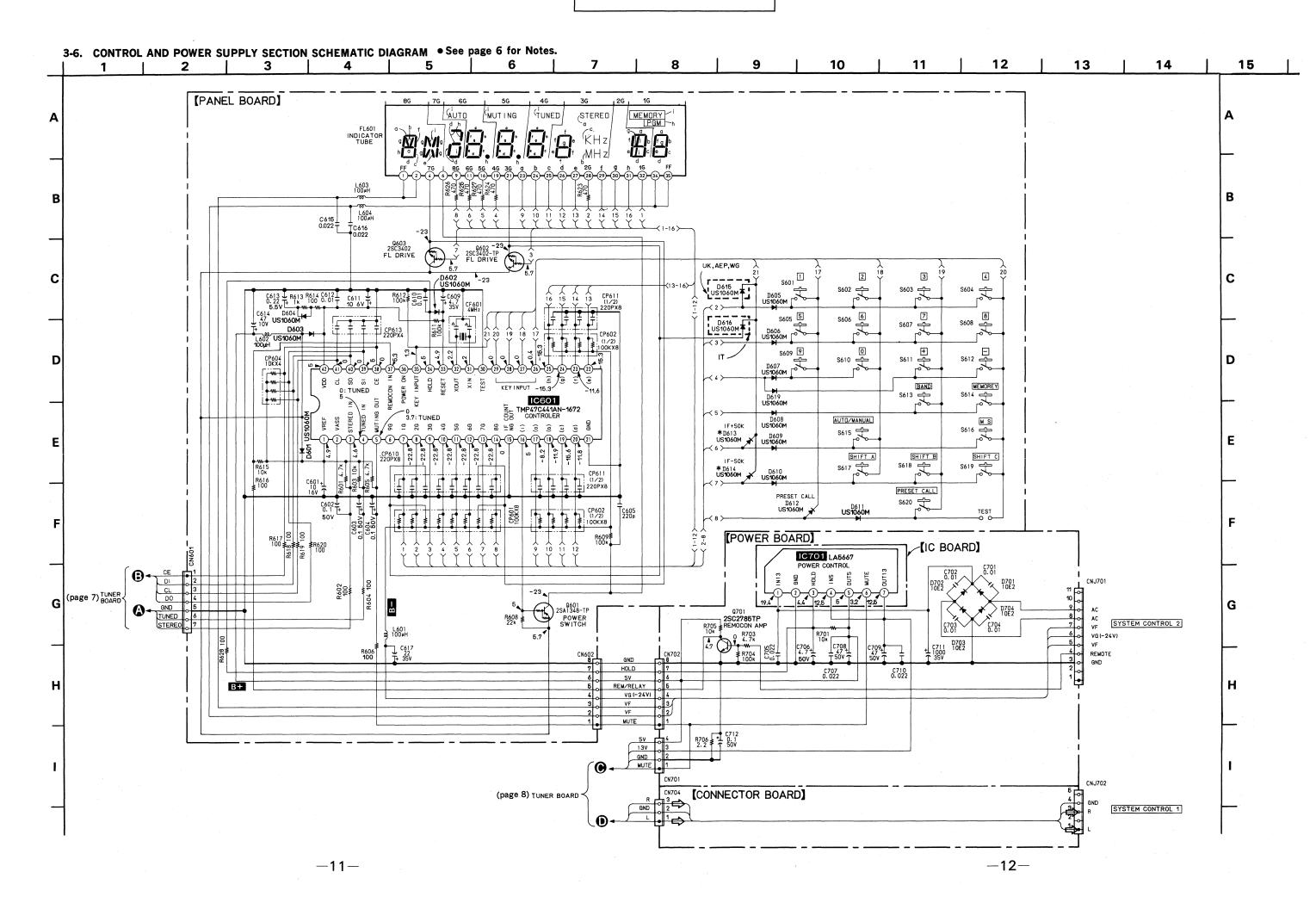


3-5. CONTROL AND POWER SUPPLY SECTION PRINTED WIRING BOARDS

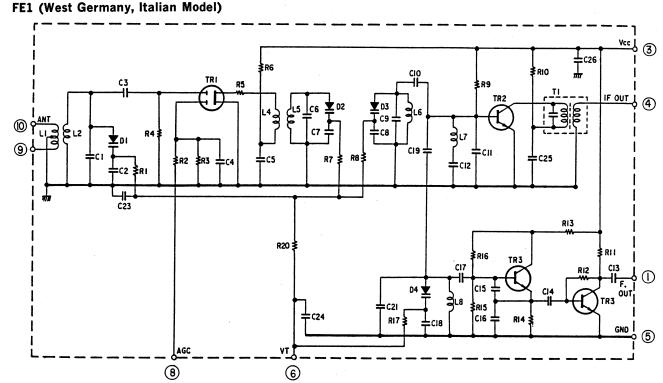
Semiconductor Location

Ref. No.	Location
D601	C-8
D602	B-6
D603	D-9
D604	D-9
D605	B-9
D606	B-8
D607	B-8
D608	D-8
D609	D-8
D610	B-9
D611	C-5
D612	B-5
D613	B-8
D614	B-8
D615	B-3
D619	B-4
D701	H-9
D702	H-9
D703	H-9
D704	H-9
IC601	B-6
IC701	F-9
Q601	C-7 C-8
Q602 Q603	C-8
Q701	F-8

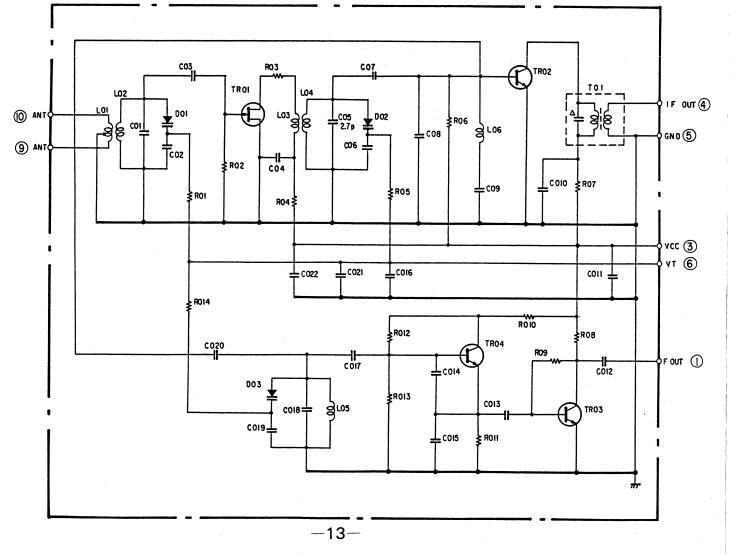




3-7. FM FRONT-END SCHEMATIC DIAGRAMS





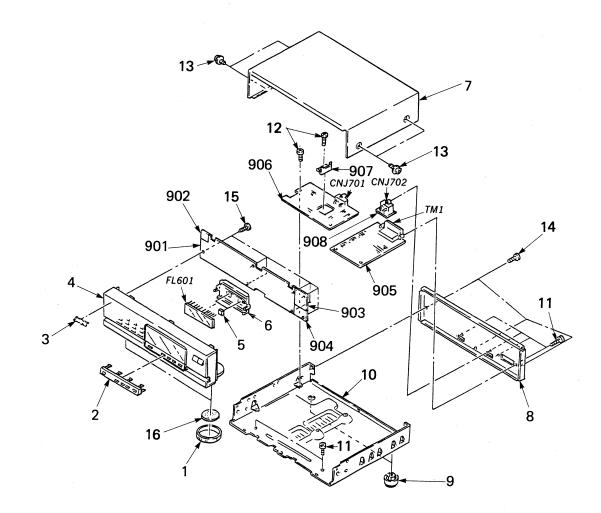


SECTION 4 EXPLODED VIEW

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.

Cabinet's Color Parts Color



No.	Part No.	Description	Remarks	No.	Part No.	Description	Remarks
1	X-4917-252-1	PLATE (LEG) ASSY, ORNAMENTAL	16	901	*A-4333-204-A	(AEP,UK)MOUNTED PCB, PANEL	902-904
2	4-925-176-11	PLATE, ORNAMENTAL			*A-4333-206-A	(IT)MOUNTED PCB, PANEL	902-904
3	4-925-161-21	EMBLEM (4-A), SONY				(WG)MOUNTED PCB, PANEL	902-904
4	X-4917-265-1	PANEL ASSY (L), FRONT					
				902	*1-631-099-11	PC BOARD, LED	
5	*4-921-941-21	CUSHION (FL)		903	*1-631-097-11		
6	*4-923-103-01	HOLDER, FL TUBE		904	*1-631-098-11		
7	4-919-389-12	CASE				, , , , , , , , , , , , , , , , , , , ,	
				905	*A-4303-181-A	(AEP,UK)MOUNTED PCB, TUNER	
8	*4-928-479-01	(AEP,UK,IT)PANEL, BACK				(WG,IT)MOUNTED PCB, TUNER	
	*4-928-479-21	(WG)PANEL, BACK				(May11)	
				906	*1-631-100-11	PC BOARD, POWER	
9	X-4917-254-1	FOOT ASSY		907	*1-631-101-11		
10	*4-92 4-52 0-01	CHASSIS		908	*1-631-102-11		
11	7-685-646-79	SCREW +BVTP 3X8 TYPE2 N-S				TO DOMEST OF THE OTHER PROPERTY.	
12	7-682-548-04	SCREW +BVTT 3X8 (S)		CN.170	11-566-858-11	SOCKET, CONNECTOR 11P(SYSTEM CO	MTROL 21
					2*1-566-856-11	SOCKET, CONNECTOR SP(SYSTEM CON	
13	3-704-366-01	SCREW (CASE) (M3X8)				500 NET , 50 NIE 61 61 61 61 61 61	
14	7-682-547-04			FL601	1-519-512-11	INDICATOR TUBE, FLUORESCENT	
15	7-685-134-19	SCREW +BTP 2.6X8 TYPE2 N-S		TMI	*1-537-138-31		
. 16	4-928-401-01	FELT				The sound (Mil)	

SECTION 5 ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS: MF: μF, PF: μμF.

RESISTORS

- All resistors are in ohms. F: nonflammable

COILS

MMH: mH, UH: μH

SEMICONDUCTORS

In each case, U: μ , for example: UA...: μ A..., UPA...: μ PA..., UPC...: μ PD...

The components identified by mark \(\frac{\hat{\Lambda}}{\text{n}} \) or dotted line with mark \(\frac{\hat{\Lambda}}{\text{n}} \) are critical for safety.

Replace only with part number specified.

WG: West Germany model

IT: Italian model

		•								
Ref.No.	Part No.	Description			Ref.No.	Part No.	Description			
901	*A-4333-204-A *A-4333-206-A *A-4333-211-A	(AEP,UK)MOUNTED PCB, (IT)MOUNTED PCB, (WG)MOUNTED PCB,	PANEL	-	C44 C45 C46	1-163-059-00 1-123-382-00 1-162-375-00		3.3MF	20% 20% 20%	16V 50V 25V
902 903 904	*1-631-099-11 *1-631-097-11 *1-631-098-11	PC BOARD, LED PC BOARD, TUNING PC BOARD, VR/SW			C47 C48	1-162-294-31 1-123-382-00		CHIP 0.001MF 3.3MF	20% 20%	25V 50V
905	*A-4303-181-A	(AEP,UK)MOUNTED PCB, (WG,IT)MOUNTED PCB,			C49 C50	1-162-375-00	CERAMIC CHIP (WG,IT)		20%	25 V
906 907	*1-631-100-11 *1-631-101-11	PC BOARD, POWER			C51	1-124-477-11	CERAMIC	CHIP 0.001MF 47MF	20% 20%	25¥ 16¥
908	*1-631-102-11	PC BOARD, CONNECTOR			C53 C61	1-102-951-00 1-163-063-00		15PF 0.022MF	5%	50V 25V
C1 C2 C3	1-162-294-31 1-124-477-11 1-163-059-00	CERAMIC CHIP 0.001MF ELECT 47MF CERAMIC MELF 0.01MF	20% 20% 20%	25V 16V 16V	C62 C63	1-163-063-00	CERAMIC MELF			25V 25V
C4 C5	1-162-294-31	CERAMIC CHIP 0.001MF CERAMIC MELF 0.01MF	20%	25V 16V	C64 C65	1-163-063-00 1-163-063-00	CERAMIC MELF	0.022MF		25V 25V
C6	1-163-059-00	CERAMIC MELF 0.01MF	20%	160	C66 C67	1-163-063-00	CERAMIC	0.0018MF	10%	25V 50V
C7 C8	1-163-059-00	(WG,IT) CERAMIC MELF 0.01MF (WG,IT)	20%	167	C68 C69	1-162-523-11	CERAMIC CHIP		20%	25V 25V
co		CERAMIC MELF 0.01 MF		167	C70 C71	1-163-063-00 1-163-063-00	CERAMIC MELF CERAMIC MELF			25V 25V
C9 C2 1 C22	1-101-006-00	CERAMIC MELF 0.01MF CERAMIC 0.047MF CERAMIC MELF 0.01MF	20% 20% 20%	16V 50V 16V	C72 C73 C81	1-163-063-00 1-163-063-00 1-102-961-00			5%	25 V 25 V 50 V
C23 C24 C25 C26			20% 20% 20%	16V 50V 25V 12V	C82 C83 C84	1-102-961-00 1-163-059-00 1-163-059-00	CERAMIC CERAMIC MELF		5% 20%	50V 16V
C27	1-162-521-11	(WG,IT)	206	124	C85	1-163-059-00	CERAMIC MELF		20%	16V 16V
C27	1-162-516-11	CERAMIC CHIP 680PF (AEP,UK)	20% 10%	50V 50V	C86 C87	1-124-477-11 1-163-059-00	ELECT	47MF	20% 20%	16V 16V
C28 C29 C30	1-124-499-11 1-162-516-11 1-124-499-11	ELECT 1.0MF CERAMIC CHIP 100PF	20% 10% 20%	50V 50V 50V	C88 C101 C102	1-163-059-00 1-124-925-11 1-124-463-00	ELECT	0.01MF 2.2MF 0.1MF	20% 20% 20%	16V 50V 50V
C31 C32 C33	1-124-902-00 1-124-463-00 1-130-481-00		20% 20% IF 5%	50V 50V 50V	C103 C104 C105	1-163-059-00 1-163-059-00 1-124-477-11	CERAMIC MELF ELECT	0.01MF 47MF	20% 20% 20%	16V 16V 16V
C34 C35 C36	1-123-382-00 1-130-481-00 1-123-382-00	PE TEREPHTHALATE 0.0068M	20% IF 5% 20%	50V 50V 50V	C106 C107 C108	1-136-173-00 1-124-463-00 1-101-005-00	ELECT CERAMIC	0.1MF 0.022MF	5% 20%	50V 50V 50V
C37 C39 C40	1-123-875-11 1-163-059-00 1-124-463-00	ELECT 10MF CERAMIC MELF 0.01MF ELECT 0.1MF	20% 20% 20%	50V 50V 50V	C601 C602 C603	1-124-463-00 1-124-463-00		10MF 0.1MF 0.1MF	20% 20% 20%	16V 50V 50V
C41 C42 C43	1-124-927-11 1-163-059-00 1-126-176-11	ELECT 4.7MF CERAMIC MELF 0.01MF ELECT 220MF	20% 20% 20%	50V 16V 10V	C604 C605 C609	1-124-463-00 1-162-286-31 1-126-094-11	ELECT CERAMIC ELECT	0.1MF 220PF 4.7MF	20% 10% 20%	50V 50V 35V
				•						

-	Ref.No.	Part No.	Description	<u>1</u>			Ref.No.	Part No.	Description	
	C610 C611 C612	1-161-379-00 1-126-157-11 1-161-379-00	ELECT	0.01MF 10MF 0.01MF	30% 20% 30%	16V 16V 16V	D613 D614 D615	8-719-000-26 8-719-000-26 8-719-000-26	DIODE US1060M DIODE US1060M (AEP,UK,WG)DIODE U	JS1060M
	C613 C614 C615	1-125-486-11 1-124-589-11 1-101-005-00	DOUBLE LAYER ELECT CERAMIC	S 0.22F 47MF 0.022MF	20% 10%	5.5V 10V 50V	D616 D619 D701	8-719-000-26 8-719-000-26 8-719-200-77	(IT)DIODE US1060M DIODE US1060M DIODE 10E2N	
	C616 C617 C701	1-101-005-00 1-123-357-00 1-101-004-00	ELECT	0.022MF 22MF 0.01MF	10% 20%	50V 35V 50V	D702 D703 D704	8-719-200-77 8-719-200-77 8-719-200-77	DIODE 10E2N DIODE 10E2N DIODE 10E2N	
	C702 C703 C704	1-101-004-00 1-101-004-00 1-101-004-00	CERAMIC	0.01 MF 0.01 MF 0.01 MF		50V 50V 50V	FE1 FF61 FE62	1-463-857-11 1-236-462-11 1-236-463-11	FRONT END (FM) ENCAPSULATED COMPONEN ENCAPSULATED COMPONEN	IT (MW RF BLOCK) IT (LW RF BLOCK)
	C705 C706 C707	1-101-005-00 1-124-927-11 1-101-005-00	ELECT	0.022MF 4.7MF 0.022MF	20%	50V 50V 50V	FL601 IC21 IC81	1-519-512-11 8-759-821-45	INDICATOR TUBE, FLUOR	ESCENT
	C708 C709 C710	1-124-910-11 1-124-910-11 1-101-005-00	ELECT	47MF 47MF 0.022MF	20% 20%	50V 50V 50V	IC601 IC701	8-759-820-91 8-759-234-25 8-759-820-09		
	C711 C712	1-126-105-11 1-124-463-00	ELECT	1000MF 0.1 MF	20% 20%	35V 50V	L1 L2 L21	1-410-645-31 1-410-645-31 1-407-500-00	MICRO INDUCTOR (100UH (WG,IT)MICRO INDUC MICRO INDUCTOR (4.7mH	TOR (100UH)
	C C 1 C C 5 C C 2 2	1-249-366-11 1-249-997-11 1-249-366-11	CARBON MELF CARBON MELF CARBON MELF	0 5% 0 5% 0 5%	1/5W 1/8W 1/5W		L61 L601 L602	1-410-525-11 1-408-421-00 1-408-421-00	MICRO INDUCTOR (220UH INDUCTOR 100UH INDUCTOR 100UH	()
	CF1 CF2	1-567-389-11	FILTER, CERA				L603 L604	1-408-421-00 1-408-421-00	I NOUCT OR 10 OUH I NOUCT OR 100 UH	
	CF3	1-567-389-11	(WG,IT)FI	LTER, CERAM			LPF21 LPF22	1-235-164-00 1-235-164-00		
	CF21 CF601	1-577-075-11 1-577-358-21	OSCILLATOR, VIBRATOR, CE				Q١	8-729-266-93	TRANSISTOR 2SC2669	
		1-404-853-11	TRANSFORMER,		FILTER) ·	02 03	8-729-266-93 8-729-266-93	TRANSISTOR 2SC2669 (WG,IT)TRANSISTOR	2SC2669
	CN602	1-568-282-11 *1-568-283-11 *1-568-308-11	SOCKET, CONNI SOCKET, CONNI SOCKET, CONNI	ECTOR 8P			04 02 1 022	8-729-266-93 8-729-820-23 8-729-820-23	(WG,IT)TRANSISTOR TRANSISTOR 2SC3330S TRANSISTOR 2SC3330S	2SC2669
	CN704 7	*1-568-312-21 *1-568-307-21 *1-568-276-11	SOCKET, CONNE	ECT OR 3P			Q26 Q61 Q62	8-729-900-80	TRANSISTOR DTC114ES TRANSISTOR DTC114ES TRANSISTOR DTC114ES	
	CNJ3 *	*1-568-275-11 1-568-269-11	SOCKET, CONNE SOCKET, CONNE SOCKET, CONNE	ECT OR 9P ECT OR 3P			Q63 Q64 Q65	8-729-900-80 8-729-820-23	TRANSISTOR DTC114ES TRANSISTOR 2SC3330S TRANSISTOR 2SA1317	
		*1-566-858-11 *1-566-856-11	SOCKET, CONNE SOCKET, CONNE				Q66	8-729-900-80	TRANSISTOR DTC114ES	
		1-233-138-11 1-233-138-11 1-232-986-11	COMPOSITION (COMPOSITION (COMPOSITION (CIRCUIT BLOO	K		068 081	8-729-900-80 8-729-806-10	TRANSISTOR DTC114ES TRANSISTOR 2SA1348	
	CP611	1-233-151-11 1-233-151-11	COMPOSITION (CIRCUIT BLOC	K	N.	082 083 084	8-729-900-80 8-729-202-67 8-729-203-57	TRANSISTOR DTC114ES TRANSISTOR 2SK246GR3 TRANSISTOR 2SC3113A	
	D61	1-233-150-11 8-719-000-26 8-719-000-26	DIODE US1060M DIODE US1060M DIODE US1060M	1	:K	:	085 086 0601	8-729-202-67 8-729-203-57 8-729-806-10	TRANSISTOR 2SK246GR3 TRANSISTOR 2SC3113A TRANSISTOR 2SA1348	
		8-719-000-26 8-719-000-26	DIODE US1060M	1			Q602 Q603	8-729-900-80 8-729-900-80	TRANSISTOR DTC114ES TRANSISTOR DTC114ES	
	D604	8-719-000-26 8-719-000-26	DIODE US1060M DIODE US1060M	1				.1-249-397-11		2 5% 1/4W F
		8-71 9-000-26 8-71 9-000-26 8-71 9-000-26	DIODE US1060M DIODE US1060M DIODE US1060M	1			R1 <u>A</u> R2 R3 R4	1-249-401-11 1-249-405-11 1-249-329-11	CARBON 100 5 CARBON MELF 330 5	% 1/8W
-	D610	8-719-000-26 8-719-000-26 8-719-000-26 8-719-000-26	DIODE US1060M DIODE US1060M DIODE US1060M DIODE US1060M	1 1			R4	line with	mponents identified by mark A are critical for only with part number sp	% 1/8W nark ♠ or dotted safety.

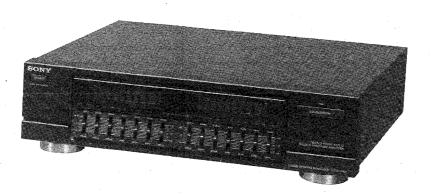
Ref.No	Part No.	Description		Ref.No. Part No.	Description	
R5	1-249-329-11	CARBON MELF 330 5%	1/8W	R89 1-249-335-11	CARBON MELF 1K	5% 1/8W
R6	1-249-350-11	CARBON MELF 18K 5%		R90 1-249-347-11	CARBON MELF 1OK	5% 1/8W
R7	1-249-329-11	CARBON MELF 330 5%		R91 1-249-335-11	CARBON MELF 1K	5% 1/8W
R8	1-249-332-11	CARBON MELF 560 5%		R92 A.1-249-401-11	CARBON 47	5% 1/4W F
R9	1-249-352-11	CARBON MELF 27K 5%		R101 1-249-341-11	CARBON MELF 3.3K	5% 1/8W
R1 0	1-249-329-11	(WG,IT)CARBON MELF		R102 1-249-332-11	CARBON MELF 560	5% 1/8W
R11	1-249-350-11	(WG,IT)CARBON MELF	18K 5% 1/8W	R103 1-249-335-11	CARBON MELF 1K	5% 1/8W
R12	1-249-329-11	(WG,IT)CARBON MELF	330 5% 1/8W	R104 1-249-328-11	CARBON MELF 270	5% 1/8W
R13	1-249-334-11	(WG,IT)CARBON MELF	820 5% 1/8W	R105 1-249-343-11	CARBON MELF 4.7K	5% 1/8W
R14	1-249-352-11	(WG,IT)CARBON MELF	27K 5% 1/8W	R106 1-249-339-11	CARBON MELF 2.2K	
R15	1-249-347-11	(WG,IT)CARBON MELF	10K 5% 1/8W	R107 1-249-343-11	CARBON MELF 4.7K	
R16	1-249-343-11	(WG,IT)CARBON MELF	4.7K 5% 1/8W	R108 1-249-323-11	CARBON MELF 100	
R21 R22 R23	☆. 1-249-404-00 1-249-433-11 1-249-335-11	CARBON 82 5% CARBON 22K 5% CARBON MELF 1K 5%	5 1/4W	R109 1-249-343-11 R111 1-249-341-11 R112 1-249-332-11	CARBON MELF 4.7K CARBON MELF 3.3K CARBON MELF 560	
R2 4	1-249-353-11	CARBON MELF 33K 5%	5 1/4W	R113 1-249-335-11	CARBON MELF 1K	5% 1/8W
R2 5	1-249-428-11	CARBON 8.2K 5%		R114 1-249-328-11	CARBON MELF 270	5% 1/8W
R2 7	1-249-350-11	CARBON MELF 18K 5%		R115 1-249-351-11	CARBON MELF 22K	5% 1/8W
R29 R31 R32	1-249-347-11 1-249-331-11 1-249-347-11	CARBON MELF 10K 5% CARBON MELF 470 5% CARBON MELF 10K 5%	3 1/8W	R116 1-249-339-11 R117 1-249-343-11 R118 1-249-323-11	CARBON MELF 2.2K CARBON MELF 4.7K CARBON MELF 100	
R33	1-249-347-11	CARBON MELF 10K 59	6 1/4W	R601 1-249-425-11	CARBON 4.7K	5% 1/4W
R34	1-249-437-11	CARBON 47K 59		R602 1-249-405-11	CARBON 100	5% 1/4W
R35	1-249-355-11	CARBON MELF 47K 59		R603 1-249-429-11	CARBON 10K	5% 1/4W
R37	1-249-359-11	CARBON MELF 100K 59	6 1/8W	R604 1-249-405-11	CARBON 100	5% 1/4W
R38	1-249-363-11	CARBON MELF 220K 59		R605 1-249-425-11	CARBON 4.7K	5% 1/4W
R39	1-249-339-11	CARBON MELF 2.2K 59		R606 1-249-405-11	CARBON 100	5% 1/4W
R40 R41 R42	1-249-338-11 1-249-344-11 1-249-359-11	CARBON MELF 1.8K 59 CARBON MELF 5.6K 59 CARBON MELF 100K 59	6 1/8W	R608 1-249-433-11 R609 1-249-441-11 R611 1-249-441-11	CARBON 22K CARBON 100K CARBON 100K	
R43	1-249-363-11	CARBON MELF 220K 55	7/8W	R612 1-249-441-11	CARBON 100K	5% 1/4W
R44	1-249-339-11	CARBON MELF 2.2K 55		R613 1-249-417-11	CARBON 1K	5% 1/4W
R45	1-249-338-11	CARBON MELF 1.8K 55		R614 1-249-405-11	CARBON 100	5% 1/4W
R46	1-249-344-11	CARBON MELF 5.6K 55	% 1/4W F	R615 1-249-429-11	CARBON 10K	5% 1/4W
R47	1-249-409-11	CARBON 220 55		R616 1-249-405-11	CARBON 100	5% 1/4W
R61	1-249-359-11	CARBON MELF 100K 55		R617 1-249-405-11	CARBON 100	5% 1/4W
R62	1 -2 49-355-1 1	CARBON MELF 47K 55	% 1/8W	R618 1-249-405-11	CARBON 100	5% 1/4W
R64	1 -2 49-351 -1 1	CARBON MELF 22K 55		R619 1-249-405-11	CARBON 100	5% 1/4W
R65	1 -2 49-355-1 1	CARBON MELF 47K 55		R620 1-249-405-11	CARBON 100	5% 1/4W
R66 R67 R68	1-215-493-00 1-249-359-11 1-249-352-11	CARBON MELF 100K 5	% 1/8W	R623 1-249-413-11 R624 1-249-413-11 R625 1-249-413-11	CARBON 470 CARBON 470 CARBON 470	5% 1/4W 5% 1/4W 5% 1/4W
R69 R70 R71	1-249-351-11 1-249-331-11 1-249-339-11	CARBON MELF 470 5	% 1/8W	R626 1-249-413-11 R627 1-249-413-11 R628 1-249-405-11	CARBON 470 CARBON 470 CARBON 100	5% 1/4W 5% 1/4W 5% 1/4W
R72 R73 R74	1-249-351-11 1-249-343-11 1-249-347-11	CARBON MELF 4.7K 5	% 1/8W	R701 1-249-429-11 R703 1-249-425-11 R704 1-249-441-11	CARBON 10K CARBON 4.7K CARBON 100K	
R75 R81 R82	1-249-343-11 1-249-335-11 1-249-335-11	CARBON MELF 1K 5	% 1/8W	R705 1-249-429-11 R706 1-249-385-11	CARBON 10K CARBON 2.2	5% 1/4W 5% 1/4W
R83 R84 R85	1-249-335-11 1-249-335-11 1-249-347-11	CARBON MELF 1K 5	% 1/8W % 1/8W % 1/8W	RV21 1-238-013-11 RV21 1-238-015-11	(WG,IT)RES, AD	TEREO SEPARATION)
R86 R87 R88	1-249-335-11 1-249-347-11 1-249-343-11	CARBON MELF 10K 5	% 1/8W % 1/8W % 1/8W	RV22 1-238-017-11	RES, ADJ, CARBON 2	2K (AM TUNING)

Note: The components identified by mark \bigwedge or dotted line with mark \bigwedge are critical for safety. Replace only with part number specified.

Ref.No.	Part No.	Description
RV24	1-238-013-11	(AEP,UK)RES, ADJ, CARBON 2.2K (FM TUNING)
RV24	1-238-019-11	(WG,IT)RES, ADJ, CARBON 47K (FM TUNING)
S601 S602 S603	1-554-303-21 1-554-303-21 1-554-303-21	SWITCH, KEY BOARD (1) SWITCH, KEY BOARD (2) SWITCH, KEY BOARD (3)
S604 S605 S606		SWITCH, KEY BOARD (4) SWITCH, KEY BOARD (5) SWITCH, KEY BOARD (6)
S607 S608 S609	1-554-303-21	SWITCH, KEY BOARD (7) SWITCH, KEY BOARD (8) SWITCH, KEY BOARD (9)
S610 S611 S612	1-554-303-21	SWITCH, KEY BOARD (0) SWITCH, KEY BOARD (TUNING +) SWITCH, KEY BOARD (TUNING -)
S613 S614 S615	1-554-303-21 1-554-303-21 1-554-303-21	SWITCH, KEY BOARD (BAND) SWITCH, KEY BOARD (MEMORY) SWITCH, KEY BOARD (AUTO TUNING)
S616 S617 S618	1-554-303-21 1-554-303-21 1-554-303-21	SWITCH, KEY BOARD (MEMORY SCAN) SWITCH, KEY BOARD (SHIFT A) SWITCH, KEY BOARD (SHIFT B)
S619 S620	1-554-303-21 1-554-303-21	SWITCH, KEY BOARD (SHIFT C) SWITCH, KEY BOARD (PRESET/FREQUENCY)
	1-404-807-11 1-236-465-11	TRANSFORMER, DISCRIMINATOR (WG,IT)ENCAPSULATED COMPONENT
TMI	*1-537-138-31	TERMINAL BOARD (ANT)
TPl	*1-560-060-00	PIN, CONNECTOR 2P
18TX	1-577-126-11	VIBRATOR, CRYSTAL (7.2MHz)

SEQ-V901

SERVICE MANUAL



AEP Model UK Model E Model

SPECIFICATIONS

Input

LINE IN: Phono jacks, 245 mV

(-10 dB), 50 kohms

Output

LINE OUT: Phono jacks, 245 mV

(-10 dB),

Load impedance: more than 10

kohms

Graphic equalizer

Boost/cut range: ± 10 dB

Center frequencies: 100 Hz, 250 Hz,

500 Hz, 1 kHz, 3 kHz, 6 kHz, 14 kHz

Frequency response (with EQUALIZATION OFF)

LINE IN: 20 Hz to 50 kHz ⁺⁰_{-1.5} dB

Harmonic distortion LINE IN: Less than 0.01% (at 1 kHz,

1 V output)

Signal-to-noise ratio (with EQUALIZATION OFF)

LINE IN: Better than 100 dB (A network, 1 V output)

Power requirements AEP, West Germany model:

220 V AC 50/60 Hz

UK model: 240 V AC, 50 Hz

E model: 110 - 120 or 220 - 240 V AC,

adjustable, 50/60 Hz

Power consumption 8 W

AC outlet Dimensions 100 W, unswitched

Approx. $355 \times 95 \times 310 \text{ mm (w/h/d)}$

 $(14 \times 3^{3}/_{4} \times 12^{3}/_{16} \text{ inches})$

Weight

Approx. 2.8 kg (6 lb 3 oz)

Accessories supplied

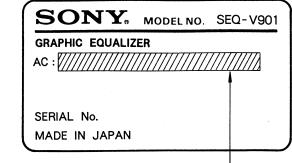
Connecting cords (2)

SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK A OR DOTTED LINE WITH MARK ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.



MODEL INDENTIFICATION

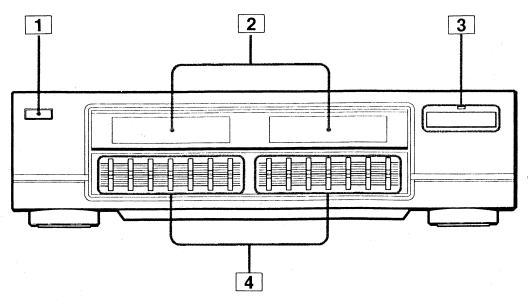


AEP, West Germany model: 220V 50/60Hz 8W : 240V 50Hz 8W UK model

: 110-120V/220-240V 50/60Hz 8W E, Saudi Arabia model

SECTION 1 GENERAL

FUNCTION OF CONTROLS

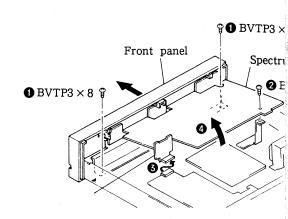


- 1 POWER switch
- 2 Spectrum analyzer
- 3 EQUALIZATION switch and indicator
- 4 Graphic equalizer controls

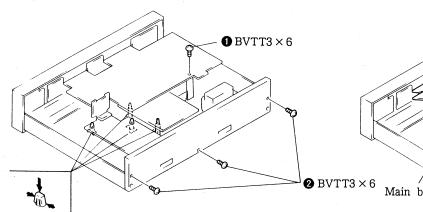
SECTION 2 DISASSEMBLY

NOTE: Follow the disassembly procedure in the numerical order given.

FRONT PANEL



MAIN, SPECTRUM ANALYZER, POWER BOARD

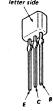


3 Remove the 4 PC board holder.

Semiconductor Lead Layouts

CXA4559P M5218P	μ PD4027BC
1 2 3 4 (Top view)	1 2 3 4 5 6 7 8 (Top view)
LC4066BH	DTA124ES
	2SC3330
[ППППППППППППППППППППППППППППППППППППП	2SC3400
1 2 3 4 5 6 7	2SC3402
(Top view)	
LC7566	
42 40 35 30 25 22	<i>€</i> 290

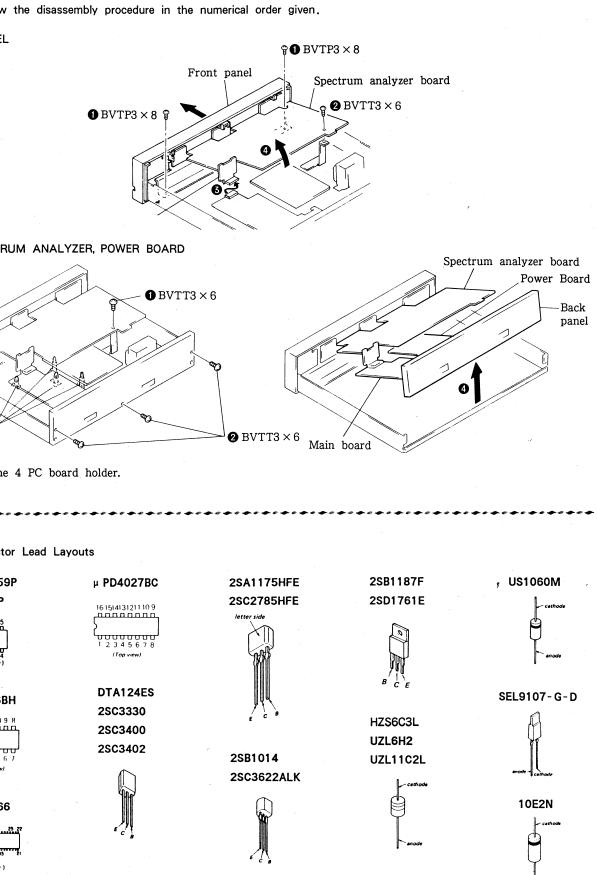
2SA1175HFE 2SC2785HFE



2SB1014 2SC3622ALK



SECTION 2 DISASSEMBLY



-3-

SECTION 3 DIAGRAMS

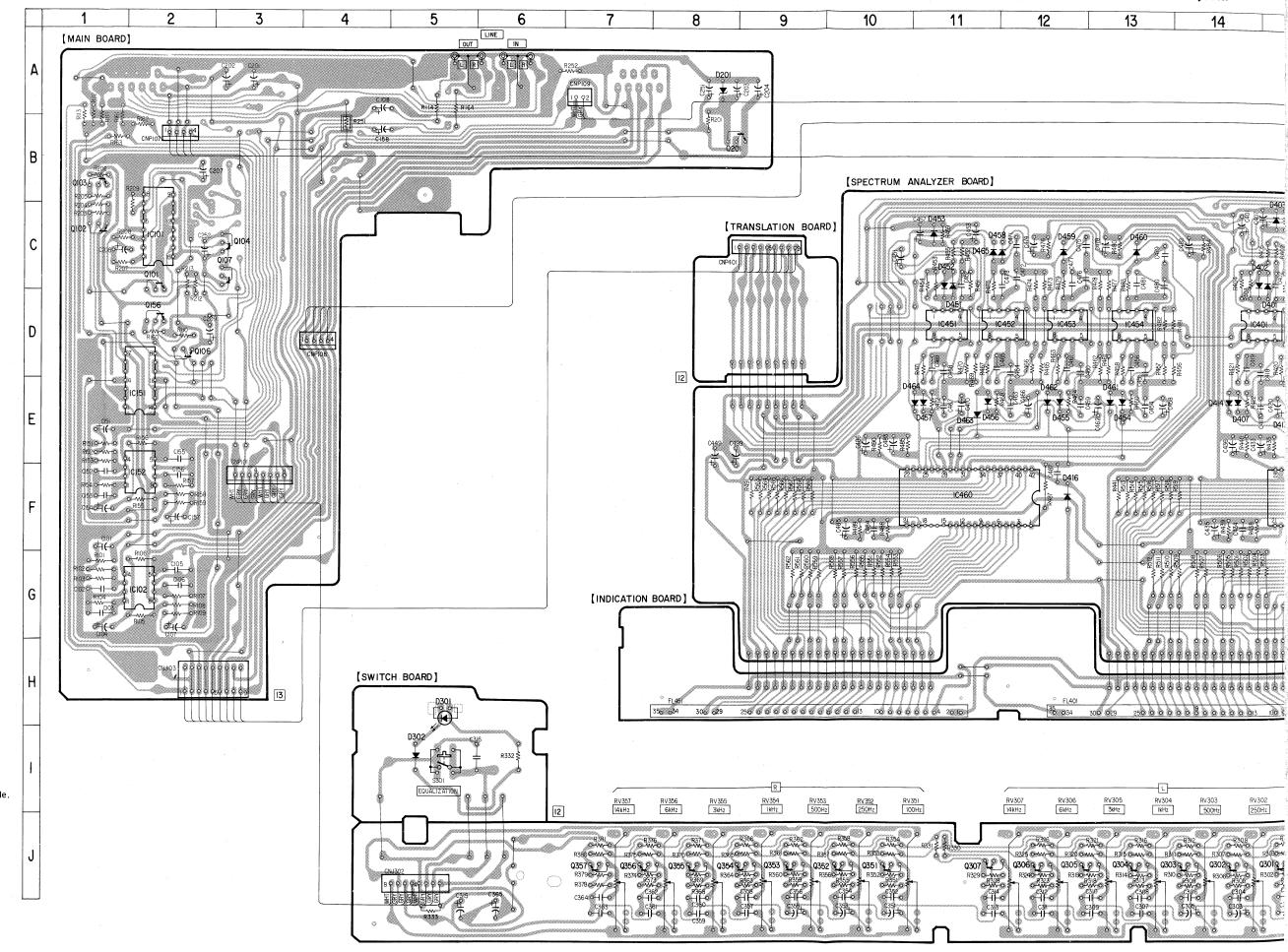
3-1. PRINTED WIRING BOARDS • See page 3 for Semiconductor Lead Layouts.

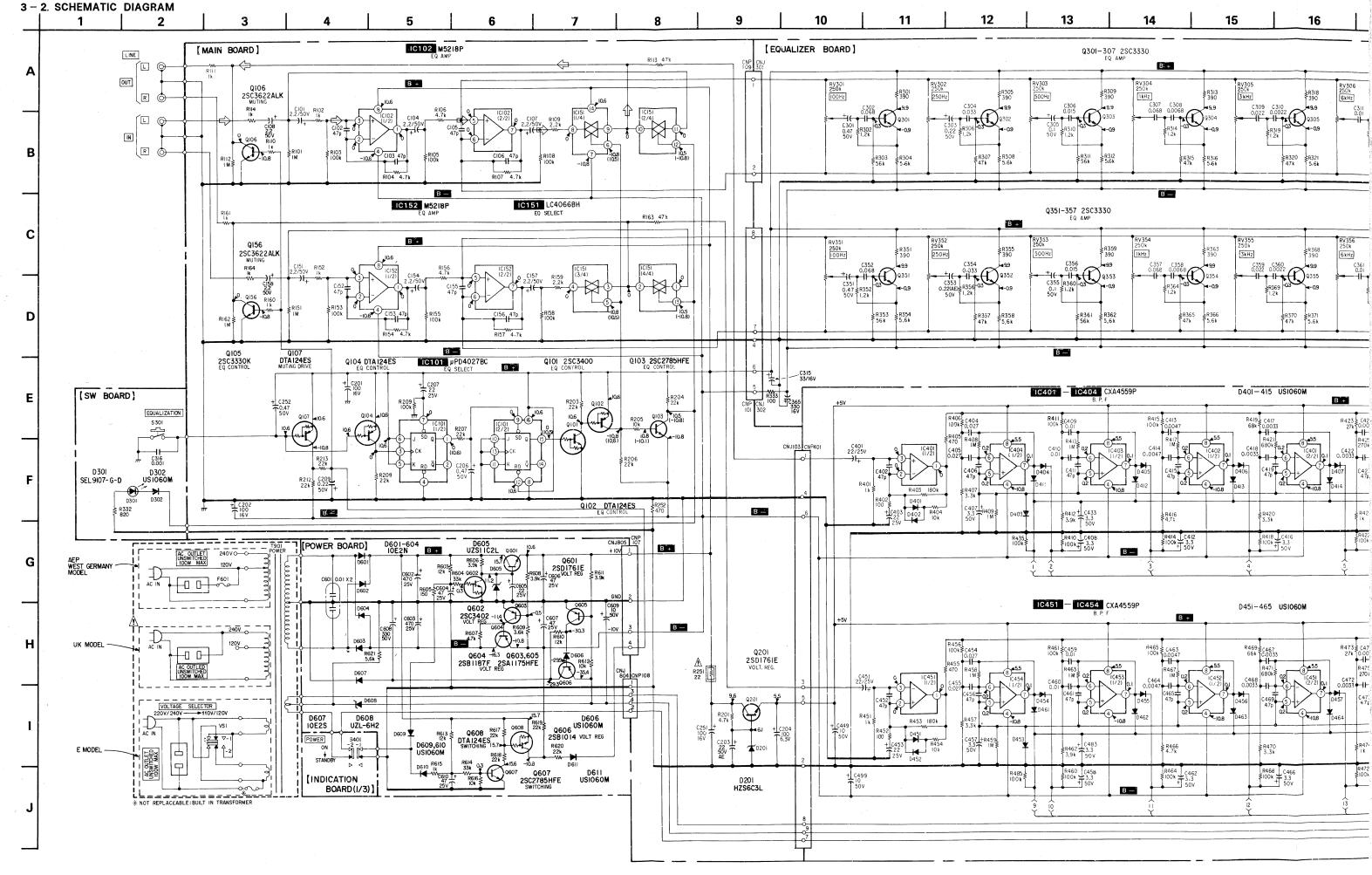
• Se	mico	nductor	Locat	ion
Pof	No	Location	Dof	No

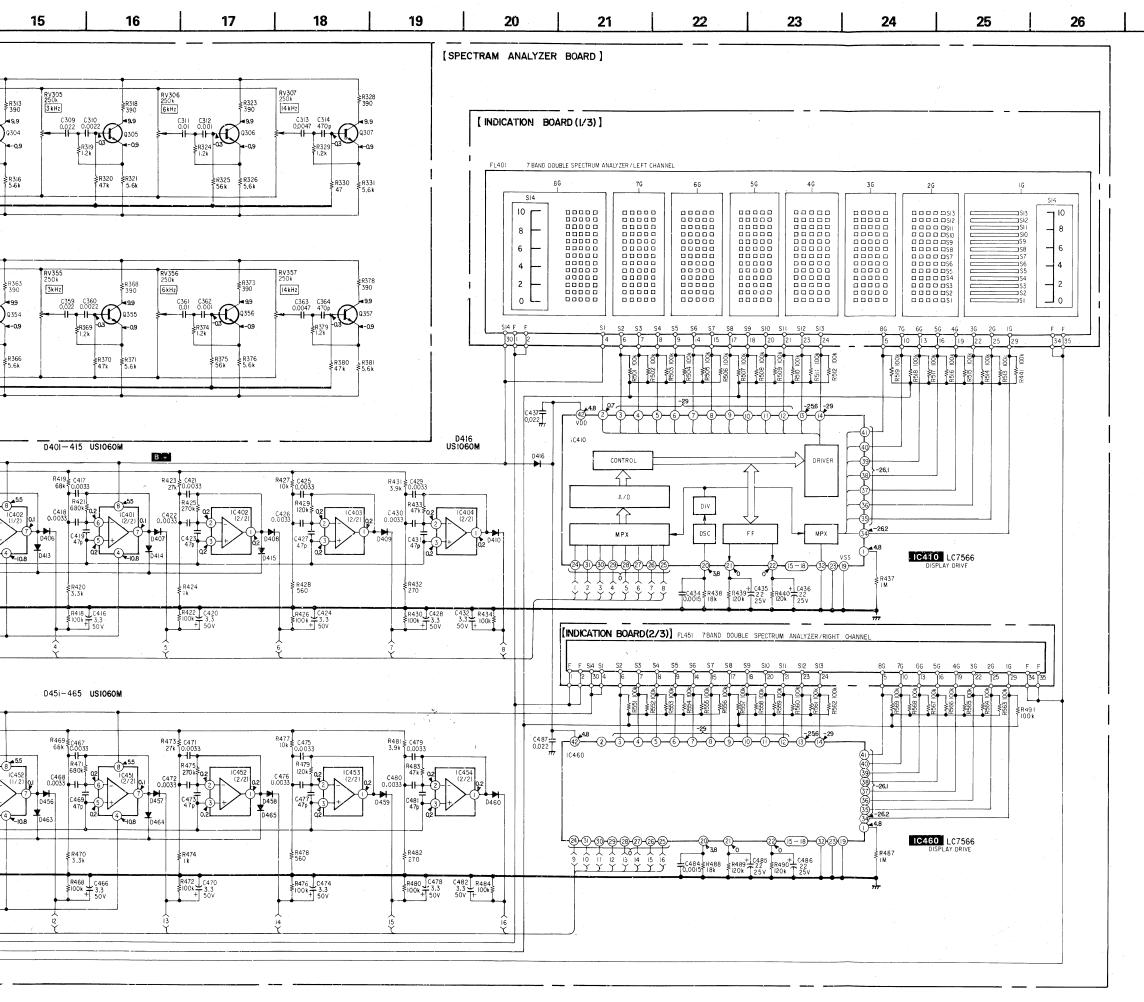
Ref. No.	Location	Ref. No,	Location
D201 D301 D302 D401 D402 D403 D404 D405 D406 D407 D408 D409 D410 D411 D412	A-8 H-5 C-15 C-14 C-15 E-17 E-16 E-17 C-17 C-17 E-17	IC101 IC102 IC151 IC152 IC401 IC402 IC403 IC404 IC410 IC451 IC452 IC453 IC454 IC460	C-2 G-2 E-2 F-2 D-15 D-17 D-17 F-15 D-11 D-11 D-12 D-13 F-11
D413 D414 D415 D416 D451 D452 D453 D454 D455 D456 D457 D458 D459 D460 D461 D462 D463 D464 D465 D601 D602 D603 D604 D605 D606 D607 D608 D609 D610 D611	E-15 E-15 E-14 C-15 F-12 C-11 E-11 C-11 C-12 C-13 E-11 C-11 C-13 E-11 C-11 C-12 C-20 C-20 C-20 C-20 C-20 C-19 C-20 C-20 C-20 C-20 C-20 C-20 C-20 C-20	Q101 Q102 Q103 Q104 Q106 Q107 Q156 Q201 Q301 Q302 Q303 Q304 Q305 Q306 Q307 Q351 Q352 Q353 Q354 Q355 Q356 Q357 Q601 Q602 Q603 Q604 Q605 Q606 Q607 Q608	C-2 C-1 B-1 C-2 D-3 D-3 D-14 J-14 J-12 J-10 J-10 J-9 J-7 D-21 C-21 C-21 C-21 B-21 B-21

Note on Printed Wiring Boards:

• o-: parts extracted from the component side.







Note on Schematic Diagram:

27

- All capacitors are in μF unless otherwise noted. pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and $1/4\,W$ or less unless otherwise specified.
- %: indicates tolerance.
- nonflammable resistor.

Note: The components identified by mark A or dotted line with mark A are critical for safety.

Replace only with part number specified.

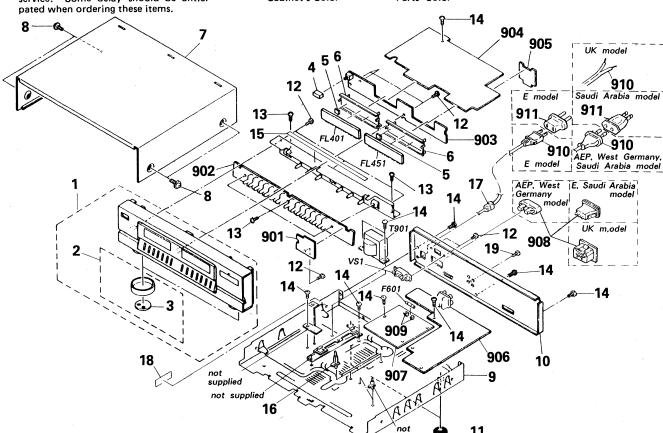
- B + : B + Line
- € B : B Line
- Voltages and waveforms are dc with respect to ground under no-signal conditions.
 - no mark : EQUALIZATION OFF
 - (): EQUALIZATION ON
- Voltages are taken with a VOM (input inpedance $10M\,\Omega$). Voltage variations may be noted due to normal production tolerances.

SECTION 4 EXPLODED VIEWS

NOTE:

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.

The components identified by mark \(\frac{\hat{\Lambda}}{\text{or dotted line with mark}} \) are critical for safety. Replace only with part number specified.



				•	supplied C		
No.	Part No.	Descript ion	Remarks	No.	Part No.	Description	Remarks
1 2 3 4 5		PANEL ASSY, FRONT PLATE (LEG) ASSY, ORNAMENTAL FELT BUTTON (D) CUSHION (FL)	2,3	19 901 902 903 904	*1-628-745-11	SCREW, TAPPING PC BOARD, SWITCH PC BOARD, EQUALIZER PC BOARD, INDICATION MOUNTED PCB, SPECTRUM ANA	LYZER
6 7 8 9	*4-923-103-01 4-919-376-02 3-704-366-01 *4-924-520-01	SCREW (CASE) (M3X8)		905 906 907 908	*1-628-749-11 *1-628-744-11 *1-631-082-11 <u>A</u> 1-526-751-00 <u>A</u> 1-526-882-00	PC BOARD, MAIN PC BOARD, POWER (UK)OUTL	
10	*4-925-160-22 *4-925-160-32 *4-925-160-42 *4-925-160-52 *4-925-160-61	(UK)PANEL, BACK (E)PANEL, BACK (Saudi Arabia)PANEL, BACK		909 9 10	1-526-794-11		ET, AC ER FUSE , POWER rabia)
11 12 13 14 15 16	7-682-547-04 *4-928-474-01 *4-924-098-31	SCREW +BTP 2.6X8 TYPE2 N-S SCREW +BVTP 3X8 TYPE2 N-S SCREW +BVTT 3X6 (S) SHEET, INSULATING HOLDER, PC BOARD		911 F601 FL401 FL451	1-519-494-11	(UK)	, POWER CONVERSION ADAPTOR , TIME LAG (1A) NT
17	3-703-571-11 3-703-244-00	(E,Saudi Arabia)BUSHING (S) (4516), CC (AEP,UK,West Germany)BUSHING (2104), CC		T901			ORMER, POWER ORMER, POWER
18	*3-703-079-21	(UK)LABEL, CAUTION (BACK)	—1 :	3—	<u></u> 1-570-046-21	(E,Saudi Arabia)SWITCH CHANGE (VOLTA	, VOLTAGE

SECTION 5 ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS: MF: μ F, PF: $\mu\mu$ F.

RESISTORS

• All resistors are in ohms.

• F: nonflammable

• MMH: mH, UH: μH

SEMICONDUCTORS In each case, U: μ, for example: UA...: μΑ..., UPA...: μΡΑ..., UPC...: μPC, UPD...: μPD...

The components identified by mark \(\frac{\Lambda}{\Lambda} \) or dotted line with mark \(\frac{\Lambda}{\Lambda} \) are critical for safety.

Replace only with part number specified.

								•				
R	ef.No.	Part No.	Description				Ref.No.	Part No.	<u>Description</u>			
	901 902 903	*1-628-748-11 *1-628-745-11 *1-628-747-11	PC BOARD, SWI PC BOARD, EQU PC BOARD, IND	JAL I ZER			C306 C307 C308		FILM FILM CERAMIC	0.015MF 0.068MF 0.0068MF	5% 5% 20%	50V 50V 16V
	904 905 906 907	*A-4380-087-A *1-628-749-11 *1-628-744-11 *1-631-082-11	MOUNTED PCB, PC BOARD, TRA PC BOARD, MAI PC BOARD, POW	ANSLATION [N	NALYZER	: •	C309 C310 C311	1-163-157-00 1-161-375-00 1-136-153-00	FILM CERAMIC FILM	0.022MF 0.0022MF 0.01MF	5% 20% 5%	50V 16V 50V
	908	⚠1-526-751-00 ⚠1-526-882-00 ⚠1-526-794-11	(UK) (E,Saudi Arab (AEP,West Ger		TLET, A	C	C312 C313 C314	1-162-294-31 1-161-377-00 1-162-290-31	CERAMIC CERAMIC CERAMIC	0.001MF 0.0047MF 470PF	10% 20% 10%	50V 16V 50V
	909	1-533-213-31	(AEP, West Ger	· · · · · · · · · · · · · · · · · · ·			C3 15 C3 16 C35 1	1-124-963-11 1-162-294-31 1-124-465-00	ELECT CERAMIC ELECT	33MF 0.001MF 0.47MF	20% 10% 20%	16V 50V 50V
	910	<u>1-551-188-xx</u> <u>1-555-750-00</u>	(E) (AEP,West Ger		Arabia)	C352 C353	1-136-175-00 1-124-464-11	FILM ELECT	0.068MF 0.22MF	5% 20%	50V 50V
		1-556-562-11	(UK)CORD			***	C354	1-136-171-00	FILM	0.033MF	5%	50 V
	911	<u></u> <u>1-506-401-00</u> <u></u> <u>1-526-565-00</u>	(Saudi Arabia (E)				C355 C356 C357	1-124-463-00 1-136-155-00 1-136-175-00	FILM	0.1MF 0.015MF 0.068MF	20% 5% 5%	50V 50V 50V
	C101 C102 C103	1-124-925-11 1-162-215-31 1-162-215-31	ELECT CERAMIC CERAMIC	2.2MF 47PF 47PF	20% 5% 5%	50V 50V 50V	C358 C359 C360	1-161-329-00 1-163-157-00 1-161-375-00	CERAMIC FILM CERAMIC	0.0068MF 0.022MF 0.0022MF	20% 5% 20%	16V 50V 16V
	C104 C105 C106	1-124-925-11 1-162-215-31 1-162-215-31	ELECT CERAMIC CERAMIC	2.2MF 47PF 47PF	20 % 5 % 5 %	50V 50V 50V	C361 C362 C363	1-136-153-00 1-162-294-31 1-161-377-00	FILM CERAMIC CERAMIC	0.01MF 0.001MF 0.0047MF	5% 10% 20%	50V 50V 16V
	C107 C108 C151	1-124-925-11 1-124-925-11 1-124-925-11	ELECT ELECT ELECT	2.2MF 2.2MF 2.2MF	20% 20% 20%	50V 50V 50V	C364 C365 C401	1-162-290-31 1-124-119-00 1-126-233-11	CERAMIC ELECT ELECT	470PF 330MF 22MF	10% 20% 20%	50V 16V 25V
	C152 C153 C154	1-162-215-31 1-162-215-31 1-124-925-11	CERAMIC CERAMIC ELECT	47PF 47PF 2.2MF	5% 5% 20%	50V 50V 50V	C402 C403 C404	1-162-215-31 1-126-233-11 1-136-158-00	CERAMIC ELECT FILM	47PF 22MF 0.027MF	5% 20% 5%	50V 25V 50V
	C 155 C156 C157	1-162-215-31 1-162-215-31 1-124-925-11	CERAMIC CERAMIC ELECT	47PF 47PF 2.2MF	5% 5% 20%	50V 50V 50V	C405 C406 C407	1-136-158-00 1-162-215-31 1-123-382-00	FILM CERAMIC ELECT	0.027MF 47PF 3.3MF	5% 5% 20%	50V 50V 50V
	C158 C201 C202	1-124-925-11 1-126-101-11 1-126-101-11	ELECT ELECT ELECT	2.2MF 100MF 100MF	20% 20% 20%	50V 16V 16V	C408 C409 C410	1-123-382-00 1-136-153-00 1-136-153-00	ELECT FILM FILM	3.3MF 0.01MF 0.01MF	20% 5% 5%	50V 50V 50V
	C203 C204 C206	1-126-233-11 1-126-177-11 1-124-902-00	ELECT ELECT ELECT	22MF 100MF 0.47MF	20% 20% 20%	25V 6.3V 50V	C411 C412 C413	1-162-215-31 1-123-382-00 1-130-479-00	CER AMIC ELECT	47PF 3.3MF 0.0047MF	5% 20% 5%	50V 50V 50V
	C207 C209 C251	1-126-233-11 1-124-464-11 1-126-101-11	ELECT ELECT ELECT	22MF 0.22MF 100MF	20% 20% 20%	25 V 5 O V 16 V	C4 14 C4 15 C4 16	1-130-479-00 1-162-215-31 1-123-382-00	MYLAR CERAMIC	0.0047MF 47PF 3.3MF	5% 5% 20%	50V 50V 50V
	C252 C301 C302	1-124-902-00 1-124-465-00 1-136-175-00	ELECT ELECT FILM	0.47MF 0.47MF 0.068MF	20% 20% 5%	50V 50V 50V	C4 17 C4 18 C4 19	1-130-477-00 1-130-477-00 1-162-215-31	MYLAR MYLAR	0.0033MF 0.0033MF 47PF	5% 5% 5%	50V 50V 50V
	C303 C304 C305	1-124-464-11 1-136-171-00 1-124-463-00	ELECT FILM ELECT	0.22MF 0.033MF 0.1MF	20% 5% 20%	50V 50V 50V	3113	. 132 2 13 3 1	32		J.,	, , , ,

R	ef.No.	Part No.	Description				Ref.No.	Part No.	Description			
	C420 C421 C422	1-123-382-00 1-130-477-00 1-130-477-00	MYLAR	3.3MF 0.0033MF 0.0033MF	20% 5% 5%	50V 50V 50V	C601 C602 C603	1-102-355-00 1-124-480-11 1-124-480-11	CERAMIC ELECT ELECT	0.01MF 470MF 470MF	20% 20%	250 25V 25V
	C423 C424 C425	1-162-215-31 1-123-382-00 1-130-477-00	CERAMIC ELECT MYLAR	47PF 3.3MF 0.0033MF	5% 20% 5%	50V 50V 50V	C604 C605 C606	1-124-477-11 1-126-233-11 1-124-477-11	ELECT ELECT ELECT	47MF 22MF 47MF	20% 20% 20%	25 V 25 V 25 V
	C426 C427 C428	1-130-477-00 1-162-215-31 1-123-382-00	MYLAR CERAMIC ELECT	0.0033MF 47PF 3.3MF	5% 5% 20%	50V 50V 50V	C607 C608 C609 C610	1-124-477-11 1-124-912-11 1-123-875-11 1-124-477-11	ELECT ELECT ELECT ELECT	47MF 330MF 10MF 47MF	20% 20% 20% 20%	25V 50V 50V 25V
	C429 C430 C431	1-130-477-00 1-130-477-00 1-162-215-31	MYLAR MYLAR CERAMIC	0.0033MF 0.0033MF 47PF	5% 5% 5%	50V 50V 50V	CNJ 103	*1-565-971-11 1-565-258-11	SOCKET, CONN JACK, PIN 4F	IECTOR (PC BO	ARD) 9P	231
	C432 C433 C434	1-123-382-00 1-123-382-00 1-102-119-00		3.3MF 3.3MF 0.0015MF	20% 20% 10%	50V 50V 50V	CNP 107	*1-564-342-11 *1-564-338-00 *1-564-338-00	PIN, CONNECT PIN, CONNECT PIN, CONNECT	OR 4P		
	C435 C436 C437	1-126-233-11 1-126-233-11 1-136-157-00	ELECT	22MF 22MF 0.022MF	20% 20% 5%	25V 25V 50V	CNP401:	*1-564-336-00 *1-565-968-11 *1-564-338-00	PIN, CONNECT PIN, CONNECT PIN, CONNECT	OR (PC BOAR	D) 9P	
	C449 C451 C452	1-123-875-11 1-126-233-11 1-162-215-31	ELECT ELECT CERAMIC	10MF 22MF 47PF	20% 20% 5%	50V 25V 50V	D201 D301 D302	8-719-933-41 8-719-311-74 8-719-000-26	DIODE HZS6C3 DIODE SEL910 DIODE US1060)7-G-D		
	C453 C454 C455	1-126-233-11 1-136-158-00 1-136-158-00	ELECT FILM FILM	22MF 0.027MF 0.027MF	20 % 5 % 5 %	25V 50V 50V	D401 D402 D403	8-719-000-26 8-719-000-26 8-719-000-26	DIODE US1060 DIODE US1060 DIODE US1060	M		
	C456 C457 C458	1-162-215-31 1-123-382-00 1-123-382-00	CERAMIC ELECT ELECT	47PF 3.3MF 3.3MF	5% 20% 20%	50V 50V 50V	D404 D405 D406	8-719-000-26 8-719-000-26 8-719-000-26	DIODE US1060 DIODE US1060 DIODE US1060	MC		
	C459 C460 C461	1-136-153-00 1-136-153-00 1-162-215-31	FILM FILM CERAMIC	0.01MF 0.01MF 47PF	5% - 5% 5%	50V 50V 50V	D407 D408 D409	8-719-000-26 8-719-000-26 8-719-000-26	DIODE US1060 DIODE US1060 DIODE US1060	M		
	C462 C463 C464	1-123-382-00 1-130-479-00 1-130-479-00	ELECT MYLAR MYLAR	3.3MF 0.0047MF 0.0047MF	20% 5% 5%	50V 50V 50V	D410 D411 D412	8-719-000-26 8-719-000-26 8-719-000-26	DIODE US1060 DIODE US1060 DIODE US1060	M		
	C465 C466 C467	1-162-215-31 1-123-382-00 1-130-477-00	ELECT	47PF 3.3MF 0.0033MF	5% 20% 5%	50V 50V 50V	D413 D414 D415	8-719-000-26 8-719-000-26 8-719-000-26	DIODE US1060 DIODE US1060 DIODE US1060	MC		
	C468 C469 C470	1-130-477-00 1-162-215-31 1-123-382-00	MYLAR CERAMIC ELECT	0.0033MF 47PF 3.3MF	5% 5% 20%	50V 50V 50V	D416 D451 D452	8-719-000-26 8-719-000-26 8-719-000-26	DIODE US1060 DIODE US1060 DIODE US1060	MC		
	C471 C472 C473	1-130-477-00 1-130-477-00 1-162-215-31	MYLAR MYLAR CERAMIC	0.0033MF 0.0033MF 47PF	5% 5% 5%	50V 50V 50V	D453 D454 D455	8-719-000-26 8-719-000-26 8-719-000-26	DIODE US1060 DIODE US1060 DIODE US1060	MC		
	C474 C475 C476	1-123-382-00 1-130-477-00 1-130-477-00	ELECT MYLAR MYLAR	3.3MF 0.0033MF 0.0033MF	20% 5% 5%	50V 50V 50V	D456 D457 D458	8-719-000-26 8-719-000-26 8-719-000-26	DIODE US1060 DIODE US1060 DIODE US1060	OM .		
	C477 C478 C479	1-162-215-31 1-123-382-00 1-130-477-00	CERAMIC ELECT MYLAR	47PF 3.3MF 0.0033MF	5% 20% 5%	50V 50V 50V	D459 D460 D461	8-719-000-26 8-719-000-26 8-719-000-26	DIODE US1060 DIODE US1060 DIODE US1060	MO		
	C480 C481 C482	1-130-477-00 1-162-215-31 1-123-382-00	MYLAR CERAMIC ELECT	0.0033MF 47PF 3.3MF	5% 5% 20%	50V 50V 50V	D462 D463 D464	8-719-000-26 8-719-000-26 8-719-000-26	DIODE US106 DIODE US106 DIODE US106	MC		
	C483 C484 C485	1-123-382-00 1-102-119-00 1-126-233-11	ELECT CERAMIC ELECT	3.3MF 0.0015MF 22MF	20% 10% 20%	50V 50V 25V	D465 D601 D602	8-719-000-26 8-719-200-77 8-719-200-77	DIODE US1060 DIODE 10E2N DIODE 10E2N	OM		
	C486 C487 C499	1-126-233-11 1-136-157-00 1-123-875-11	ELECT FILM ELECT	22MF 0.022MF 10MF	20% 5% 20%	25V 50V 50V	D603 D604 D605	8-719-200-77 8-719-200-77 8-719-933-70	DIODE 10E2N DIODE 10E2N DIODE UZL-1			

R	ef.No.	Part No.	Description	Ref.No.	Part No.	Descri
	D606 D607 D608	8-719-000-27 8-719-200-77 8-719-000-69	DIODE US1060M DIODE 10E2N DIODE UZL-6H2	R104 R105 R106	1-249-425-11 1-249-441-11 1-249-425-11	CARBON CARBON CARBON
	D609 D610 D611	8-719-000-26 8-719-000-26 8-719-000-26	DIODE US1060M DIODE US1060M DIODE US1060M	R107 R108 R109	1-249-425-11 1-249-441-11 1-249-421-11	CARBON CARBON CARBON
	F601	<u>1-532-078-00</u>	(AEP, West Germany)FUSE, TIME LAG(1A)	R1 10 R1 12	1-249-417-11 1-249-417-11 1-247-903-00	CARBON CARBON CARBON
	FL401 FL451	1-519-494-11 1-519-494-11	INDICATOR TUBE, FLUORESCENT INDICATOR TUBE, FLUORESCENT	R113 R114 R151	1-249-437-11 1-249-417-11 1-247-903-00	CARBON CARBON CARBON
	10101 10102 10151	8-759-140-27 8-759-601-02 8-759-800-37	IC UPD4027BC IC M521BP IC LC4066BH	R152 R153	1-249-417-11 1-249-441-11	CARBON CARBON
	IC152 IC401 IC402	8-759-601-02 8-759-701-12 8-759-701-12	IC M52 18P IC CXA4559P IC CXA4559P	R 154 R 155 R 156	1-249-425-11 1-249-441-11 1-249-425-11	CARBON CARBON CARBON
	IC403 IC404 IC410	8-759-701-12	IC CXA4559P IC CXA4559P IC LC7566	R157 R158	1-249-425-11	CARBON
		8-759-701-12 8-759-701-12	IC CXA4559P IC CXA4559P	R159 R160	1-249-421-11	CARBON CARBON
	I C453	8-759-701-12 8-759-701-12	IC CXA4559P IC CXA4559P	R161 R162 R163	1-249-417-11 1-247-903-00 1-249-437-11	CARBON CARBON CARBON
	1 C460 Q101 Q102	8-759-820-07 8-729-900-36 8-729-900-63	IC LC7566 TRANSISTOR 2SC3400 TRANSISTOR DTA124ES	R 164 R201 R203	1-249-417-11 1-249-421-11 1-249-433-11	CARBON CARBON CARBON
	Q103 Q104 Q106	8-729-119-78 8-729-900-63 8-729-141-26	TRANSISTOR 2SC2785HFE TRANSISTOR DTA124ES TRANSISTOR 2SC3622A-LK	R204 R205 R206	1-249-433-11 1-249-429-11 1-249-433-11	CARBON CARBON CARBON
	Q107 Q156	8-729-900-63 8-729-141-26	TRANSISTOR DTA124ES TRANSISTOR 2SC3622A-LK	R207 R208 R209	1-249-433-11	CARBON CARBON
	Q201 Q301	8-729-808-76 8-729-820-23	TRANSISTOR 2SD1761-E TRANSISTOR 2SC3330	R2 12 R2 13	1-249-441-11 1-249-433-11 1-249-433-11	CARBON CARBON CARBON
	Q302 Q303 Q304	8-729-820-23 8-729-820-23 8-729-820-23	TRANSISTOR 2SC3330 TRANSISTOR 2SC3330 TRANSISTOR 2SC3330	R251 R301	<u>1-247-692-11</u> 1-249-412-11	CARBON
	Q305 Q306 Q307	8-729-820-23 8-729-820-23 8-729-820-23	TRANSISTOR 2SC3330 TRANSISTOR 2SC3330 TRANSISTOR 2SC3330	R302 R303 R304	1-249-418-11 1-249-438-11 1-249-426-11	CARBON CARBON
	Q351 Q352 Q353	8-729-820-23 8-729-820-23 8-729-820-23	TRANSISTOR 2SC3330 TRANSISTOR 2SC3330 TRANSISTOR 2SC3330	R305 R306	1-249-412-11	CARBON CARBON CARBON
	Q354 Q355	8-729-820-23 8-729-820-23	TRANSISTOR 2SC3330 TRANSISTOR 2SC3330	R307 R308 R309	1-249-437-11 1-249-426-11 1-249-412-11	CARBON CARBON CARBON
	Q356 Q357 Q601	8-729-820-23 8-729-820-23 8-729-808-76	TRANSISTOR 2SC3330 TRANSISTOR 2SC3330 TRANSISTOR 2SD1761-E	R310 R311 R312	1-249-418-11 1-249-438-11 1-249-426-11	CARBON CARBON CARBON
	Q602 Q603	8-729-806-28 8-729-119-76	TRANSISTOR 2SC3402 TRANSISTOR 2SA1175-HFE	R313 R314 R315	1-249-412-11 1-249-418-11 1-249-437-11	CARBON CARBON CARBON
	Q604 Q605 Q606	8-729-920-91 8-729-119-76 8-729-802-22	TRANSISTOR 2SB1187-F TRANSISTOR 2SA1175-HFE TRANSISTOR 2SB1014	R3 16 R3 18	1-249-426-11 1-249-412-11	CARBON CARBON
	Q607 Q608	8-729-119-78 8-729-900-63	TRANSISTOR 2SC2785-HFE TRANSISTOR DTA124ES	R319 R320	1-249-418-11	CARBON
	R 10 1 R 102 R 103	1-247-903-00 1-249-417-11 1-249-441-11	CARBON 1M 5% 1/4W CARBON 1K 5% 1/4W CARBON 100K 5% 1/4W	R321 R323	1-249-426-11 1-249-412-11	CARBON CARBON
						T

1				componen	ed line		by ark
	R320 R321 R323	1-249-437-11 1-249-426-11 1-249-412-11	CARBON CARBON CARBON	47K 5.6K 390	5% 5% 5%	1/4W 1/4W 1/4W	
	R3 16 R3 18 R3 19	1-249-426-11 1-249-412-11 1-249-418-11	CARBON CARBON CARBON	5.6K 390 1.2K	5% 5% 5%	1/4W 1/4W 1/4W	
	R3 13 R3 14 R3 15	1-249-412-11 1-249-418-11 1-249-437-11	CARBON CARBON CARBON	390 1.2K 47K	5% 5% 5%	1/4W 1/4W 1/4W	
	R3 10 R3 1 1 R3 12	1-249-418-11 1-249-438-11 1-249-426-11	CARBON CARBON CARBON	1.2K 56K 5.6K	5% 5% 5%	1/4W 1/4W 1/4W	
	R307 R308 R309	1-249-437-11 1-249-426-11 1-249-412-11	CARBON CARBON CARBON	47K 5.6K 390	5% 5% 5%	1/4W 1/4W 1/4W	
	R304 R305 R306	1-249-426-11 1-249-412-11 1-249-418-11	CARBON CARBON CARBON	5.6K 390 1.2K	5% 5% 5%	1/4W 1/4W 1/4W	
	R301 R302 R303	1-249-412-11 1-249-418-11 1-249-438-11	CARBON CARBON CARBON	390 1.2K 56K	5% 5% 5%	1/4W 1/4W 1/4W	
	R212 R213 R251	1-249-433-11 1-249-433-11 <u>↑</u> 1-247-692-11	CARBON CARBON CARBON	22K 22K 22	5% 5% 5%	1/4W 1/4W 1/4W	F
	R207 R208 R209	1-249-433-11 1-249-433-11 1-249-441-11	CARBON CARBON CARBON	22K 22K 100K	5% 5% 5%	1/4W 1/4W 1/4W	
	R204 R205 R206	1-249-433-11 1-249-429-11 1-249-433-11	CARBON CARBON CARBON	22K 10K 22K	5% 5% 5%	1/4W 1/4W 1/4W	
	R 164 R201 R203	1-249-417-11 1-249-421-11 1-249-433-11	CARBON CARBON CARBON	1K 2.2K 22K	5% 5% 5%	1/4W 1/4W 1/4W	
	R161 R162 R163	1-249-417-11 1-247-903-00 1-249-437-11	CARBON CARBON CARBON	1K 1M 47K	5% 5% 5%	1/4W 1/4W 1/4W	
	R 158 R 159 R 160	1-249-441-11 1-249-421-11 1-249-417-11	CARBON CARBON CARBON	100K 2.2K 1K	5% 5% 5%	1/4W 1/4W 1/4W	
	R155 R156 R157	1-249-441-11 1-249-425-11 1-249-425-11	CARBON CARBON CARBON	10 OK 4.7K 4.7K	5% 5% 5%	1/4W 1/4W 1/4W	
	R 152 R 153 R 154	1-249-417-11 1-249-441-11 1-249-425-11	CARBON CARBON CARBON	1K 100K 4.7K	5% 5% 5%	1/4W 1/4W 1/4W	
	R113 R114 R151	1-249-437-11 1-249-417-11 1-247-903-00	CARBON CARBON CARBON	47K 1K 1M	5% 5% 5%	1/4W 1/4W 1/4W	
)	R110 R112	1-249-417-11 1-249-417-11 1-247-903-00	CARBON CARBON CARBON	IK IK IM	5% 5% 5%	1/4W 1/4W 1/4W	
	R107 R108 R109	1-249-425-11 1-249-441-11 1-249-421-11	CARBON CARBON CARBON	4.7K 100K 2.2K	5% 5% 5%	1/4W 1/4W 1/4W	
	l						

A are critical for safety.
Replace only with part number specified.

4.7K 5% 1/4W 100K 5% 1/4W 4.7K 5% 1/4W

Ref.No.	Part No.	<u>Description</u>				Ref.No.	Part No.	<u>Description</u>				
R324 R325 R326	1-249-418-11 1-249-438-11 1-249-426-11	CARBON CARBON CARBON	1.2K 56K 5.6K	5% 5% 5%	1/4W 1/4W 1/4W	R421 R422 R423	1-247-899-11 1-249-441-11 1-249-434-11	CARBON CARBON CARBON	680K 100K 27K	5% 5% 5%	1/4W 1/4W 1/4W	
R328 R329 R330	1-249-412-11 1-249-418-11 1-249-437-11	CARBON CARBON CARBON	390 1.2K 47K	5% 5% 5%	1/4W 1/4W 1/4W	R424 R425 R426	1-249-417-11 1-247-889-00 1-249-441-11	CARBON CARBON CARBON	1K 270K 100K	5% 5% 5%	1/4W 1/4W 1/4W	
R331 R332 R333	1-249-426-11 1-249-416-11 1-249-405-11	CARBON CARBON CARBON	5.6K 820 100	5% 5% 5%	1/4W 1/4W 1/4W	R427 R428 R429	1-249-429-11 1-249-414-11 1-247-881-00	CARBON CARBON CARBON	10K 560 120K	5% 5% 5%	1/4W 1/4W 1/4W	
R351 R352 R353	1-249-412-11 1-249-418-11 1-249-438-11	CARBON CARBON CARBON	390 1.2K 56K	5% 5% 5%	1/4W 1/4W 1/4W	R430 R431 R432	1-249-441-11 1-249-424-11 1-249-410-11	CARBON CARBON CARBON	100K 3.9K 270	5% 5% 5%	1/4W 1/4W 1/4W	
R354 R355 R356	1-249-426-11 1-249-412-11 1-249-418-11	CARBON CARBON CARBON	5.6K 390 1.2K	5% 5% 5%	1/4W 1/4W 1/4W	R433 R434 R435	1-249-437-11 1-249-441-11 1-249-441-11	CARBON CARBON CARBON	47K 100K 100K	5% 5% 5%	1/4W 1/4W 1/4W	
R357 R358 R359	1-249-437-11 1-249-426-11 1-249-412-11	CARBON CARBON CARBON	47K 5.6K 390	5% 5% 5%	1/4W 1/4W 1/4W	R437 R438 R439	1-247-903-00 1-249-432-11 1-247-881-00	CARBON CARBON CARBON	1M 18K 120K	5% 5% 5%	1/4W 1/4W 1/4W	
R360 R361 R362	1-249-418-11 1-249-438-11 1-249-426-11	CARBON CARBON CARBON	1.2K 56K 5.6K	5% 5% 5%	1/4W 1/4W 1/4W	R440 R441 R451	1-247-881-00 1-249-441-11 1-249-417-11	CARBON CARBON CARBON	120K 100K 1K	5% 5% 5%	1/4W 1/4W 1/4W	
R363 R364 R365	1-249-412-11 1-249-418-11 1-249-437-11	CARBON CARBON CARBON	390 1.2K 47K	5% 5% 5%	1/4W 1/4W 1/4W	R452 R453 R454	1-249-405-11 1-247-885-00 1-249-429-11	CARBON CARBON CARBON	100 180K 10K	5% 5% 5%	1/4W 1/4W 1/4W	
R366 R368 R369	1-249-426-11 1-249-412-11 1-249-418-11	CARBON CARBON CARBON	5.6K 390 1.2K	5% 5% 5%	1/4W 1/4W 1/4W	R455 R456 R457	1-249-413-11 1-249-441-11 1-249-423-11	CARBON CARBON CARBON	470 100K 3.3K	5% 5% 5%	1/4W 1/4W 1/4W	
R370 R371 R373	1-249-437-11 1-249-426-11 1-249-412-11	CARBON CARBON CARBON	47K 5.6K 390	5% 5% 5%	1/4W 1/4W 1/4W	R458 R459 R460	1-247-903-00 1-247-903-00 1-249-441-11	CARBON CARBON CARBON	1M 1M 100K	5% 5% 5%	1/4W 1/4W 1/4W	
R374 R375 R376	1-249-418-11 1-249-438-11 1-249-426-11	CARBON CARBON CARBON	1.2K 56K 5.6K	5% 5% 5%	1/4W 1/4W 1/4W	R461 R462 R463	1-249-441-11 1-249-424-11 1-247-903-00	CARBON CARBON CARBON	100K 3.9K 1M	5% 5% 5%	1/4W 1/4W 1/4W	
R378 R379 R380	1-249-412-11 1-249-418-11 1-249-437-11	CARBON CARBON CARBON	390 1.2K 47K	5% 5% 5%	1/4W 1/4W 1/4W	R464 R465 R466	1-249-441-11 1-249-441-11 1-249-425-11	CARBON CARBON CARBON	100K 100K 4.7K	5% 5% 5%	1/4W 1/4W 1/4W	
R381 R401 R402	1-249-426-11 1-249-417-11 1-249-405-11	CARBON CARBON CARBON	5.6K 1K 100	5% 5% 5%	1/4W 1/4W 1/4W	R467 R468 R469	1-247-903-00 1-249-441-11 1-249-439-11	CARBON CARBON CARBON	1M 100K 68K	5% 5% 5%	1/4W 1/4W 1/4W	
R403 R404 R405	1-247-885-00 1-249-429-11 1-249-413-11	CARBON CARBON CARBON	180K 10K 470	5% 5% 5%	1/4W 1/4W 1/4W	R470 R471 R472	1-249-423-11 1-247-899-11 1-249-441-11	CARBON CARBON CARBON	3.3K 680K 100K	5% 5% 5%	7/4W 1/4W 1/4W	
R406 R407 R408	1-249-441-11 1-249-423-11 1-247-903-00	CARBON CARBON CARBON	100K 3.3K 1M	5% 5% 5%	1/4W 1/4W 1/4W	R473 R474 R475	1-249-434-11 1-249-417-11 1-247-889-00	CARBON CARBON CARBON	27K 1K 270K	5% 5% 5%	1/4W 1/4W 1/4W	
R409 R4 10 R4 11	1-247-903-00 1-249-441-11 1-249-441-11	CARBON CARBON CARBON	1M 100K 100K	5% 5% 5%	1/4W 1/4W 1/4W	R476 R477 R478	1-249-441-11 1-249-429-11 1-249-414-11	CARBON CARBON CARBON	100K 10K 560	5% 5% 5%	1/4W 1/4W 1/4W	
R412 R413 R414	1-249-424-11 1-247-903-00 1-249-441-11	CARBON CARBON CARBON	3.9K 1M 100K	5% 5% 5%	1/4W 1/4W 1/4W	R479 R480 R481	1-247-881-00 1-249-441-11 1-249-424-11	CARBON CARBON CARBON	120K 100K 3.9K	5% 5% 5%	1/4W 1/4W 1/4W	4
R4 15 R4 16 R4 17	1-249-441-11 1-249-425-11 1-247-903-00	CARBON CARBON CARBON	10 OK 4.7K 1M	5% 5% 5%	1/4W 1/4W 1/4W	R482 R483 R484	1-249-410-11 1-249-437-11 1-249-441-11	CARBON CARBON CARBON	270 47K 100K	5% 5% 5%	1/4W 1/4W 1/4W	
R4 18 R4 19 R420		CARBON CARBON CARBON	100K 68K 3.3K	5% 5% 5%	1/4W 1/4W 1/4W	R485 R487 R488	1-249-441-11 1-247-903-00 1-249-432-11	CARBON CARBON CARBON	100K 1M 18K	5% 5% 5%	1/4W 1/4W 1/4W	

Ref.No.	Part No.	Description			Ref.No. Part No.	Description
R489 R490 R491	1-247-881-00 1-247-881-00 1-249-441-11	CARBON CARBON CARBON	120K 5% 120K 5% 100K 5%	1/4W 1/4W 1/4W	R616 1-249-429-11 R617 1-249-433-11 R618 1-249-433-11	CARBON 10K 5% 1/4W CARBON 22K 5% 1/4W CARBON 22K 5% 1/4W
R501 R502 R503	1-249-441-11 1-249-441-11 1-249-441-11	CARBON CARBON CARBON	10 OK 5% 10 OK 5% 10 OK 5%	1/4W 1/4W 1/4W	R619 1-249-433-11 R620 1-249-433-11 R621 1-249-426-11	CARBON 22K 5% 1/4W CARBON 22K 5% 1/4W CARBON 5.6K 5% 1/4W
R504 R505 R506	1-249-441-11 1-249-441-11 1-249-441-11	CARBON CARBON CARBON	100K 5% 100K 5% 100K 5%	1/4W 1/4W 1/4W	RV301 1-238-375-11 RV302 1-238-375-11 RV303 1-238-375-11	RES, VAR, SLIDE 250K (100Hz) RES, VAR, SLIDE 250K (250Hz) RES, VAR, SLIDE 250K (500Hz)
R507 R508 R509	1-249-441-11 1-249-441-11 1-249-441-11	CARBON CARBON CARBON	10 0K 5% 10 0K 5% 10 0K 5%	1/4W 1/4W 1/4W	RV304 1-238-375-11 RV305 1-238-375-11 RV306 1-238-375-11	RES, VAR, SLIDE 250K (1kHz) RES, VAR, SLIDE 250K (3kHz) RES, VAR, SLIDE 250K (6kHz)
R510 R511 R512	1-249-441-11 1-249-441-11 1-249-441-11	CARBON CARBON CARBON	100K 5% 100K 5% 100K 5%	1/4W 1/4W 1/4W	RV307 1-238-375-11 RV351 1-238-375-11 RV352 1-238-375-11	RES, VAR, SLIDE 250K (14kHz) RES, VAR, SLIDE 250K (100Hz) RES, VAR, SLIDE 250K (250Hz)
R513 R514 R515	1-249-441-11 1-249-441-11 1-249-441-11	CARBON CARBON CARBON	100K 5% 100K 5% 100K 5%	1/4W 1/4W 1/4W	RV353 1-238-375-11 RV354 1-238-375-11 RV355 1-238-375-11	RES, VAR, SLIDE 250K (500Hz) RES, VAR, SLIDE 250K (1kHz) RES, VAR, SLIDE 250K (3kHz)
R5 16 R5 17 R5 18	1-249-441-11 1-249-441-11 1-249-441-11	CARBON CARBON CARBON	100K 5% 100K 5% 100K 5%	1/4W 1/4W 1/4W	RV356 1-238-375-11 RV357 1-238-375-11	RES, VAR, SLIDE 250K (6kHz) RES, VAR, SLIDE 250K (14kHz)
R519 R551 R552	1-249-441-11 1-249-441-11 1-249-441-11	CARBON CARBON CARBON	100K 5% 100K 5% 100K 5%	1/4W 1/4W 1/4W	S301 1-554-303-21 S401 1-571-292-11 T901 <u></u>	SWITCH, KEY BOARD (EQUALIZATION) SWITCH, PUSH (1 KEY)(POWER) (AEP,UK, West Germany)
R553 R554 R555	1-249-441-11 1-249-441-11 1-249-441-11	CARBON CARBON CARBON	100K 5% 100K 5% 100K 5%	1/4W 1/4W 1/4W	⚠1-449-722-11 TB601 *1-535-139-00	TRANSFORMER, POWER (E,Saudi Arabia)TRANSFORMER, POWER BASE POST 22MM (10MM PITCH) 2P
R556 R557 R558	1-249-441-11 1-249-441-11 1-249-441-11	CARBON CARBON CARBON	100K 5% 100K 5% 100K 5%	1/4W 1/4W 1/4W	TB602 *1-535-140-00 TB603 *1-535-120-00 VS1	BASE POST 22MM (10MM PITCH) 3P TERMINAL (E,Saudi Arabia)SWITCH, VOLTAGE
R559 R560 R561	1-249-441-11 1-249-441-11 1-249-441-11	CARBON CARBON CARBON	100K 5% 100K 5% 100K 5%	1/4W 1/4W 1/4W		CHANGE(VOLTAGE SELECTOR)
R562 R563 R564	1-249-441-11 1-249-441-11 1-249-441-11	CARBON CARBON CARBON	10 0K 5% 10 0K 5% 10 0K 5%	1/4W 1/4W 1/4W	ACCESSORY & PACKIN	IC MATCOLAL
R565 R566 R567	1-249-441-11 1-249-441-11 1-249-441-11	CARBON CARBON CARBON	100K 5% 100K 5% 100K 5%	7/4W 1/4W 1/4W	1-558-543-11 CORE	, CONNECTION
R568 R569 R603	1-249-441-11 1-249-441-11 1-249-430-11	CARBON CARBON CARBON	100K 5% 100K 5% 12K 5%	1/4W 1/4W 1/4W	3-750-267-41 (AEF	P,UK,E,Saudi Arabia)MANUAL, INSTRUCTION P,West Germany)MANUAL, INSTRUCTION
R604 R605 R606	1-249-435-11 1-249-407-11 1-249-424-11	CARBON CARBON CARBON	33K 5% 150 5% 3.9K 5%	1/4W 1/4W 1/4W	*4-922-998-01 CUSF *4-930-822-01 INDI	VIDUAL CARTON
R607 R608 R609	1-249-425-11 1-249-424-11 1-247-844-11	CARBON CARBON CARBON	4.7K 5% 3.9K 5% 3.6K 5%	1/4W 1/4W 1/4W		
R610 R611 R612	1-249-430-11 1-249-424-11 1-249-429-11	CARBON CARBON CARBON	12K 5% 3.9K 5% 10K 5%	1/4W 1/4W 1/4W		The components identified by
R613 R614 R615	1-249-430-11 1-249-435-11 1-249-417-11	CARBON CARBON CARBON	12K 5% 33K 5% 1K 5%	1/4W 1/4W 1/4W		mark A or dotted line with mark A are critical for safety. Replace only with part number specified.

CDP-M77

SERVICE MANUAL

AEP Model UK Model E Model



Model Name Using Similar Mechanism	CDP-M95
CD Mechanism Name	CDM9-5
Base Unit Name	BU-5C

SPECIFICATION

Compact disc player

Frequency response	2 Hz – 20 kHz ± 0.5 dB
Signal to noise ratio	More than 100 dB
Dynamic range	More than 95 dB
Harmonic distortion	Less than 0.003 %
Channel separation	More than 98 dB

Outputs

LINE OUT (FIXED) (phono jacks)	Output level 2 V (at 50 kilohms) Load impedance over 10 kilohms	
DIGITAL OUT (OPTICAL) (optical output connector)	Wave length 660 nm Output level - 18 dBm	
HEADPHONES	Output level max. 15 mW	
(stereo phone jack)	Load impedance 32 ohms	

General

AEP model 220 V AC (or 240 V AC adjustable by Sony personnel), 50/60 Hz UK model 240 V AC (or 220 V AC adjustable by Sony personnel), 50/60 Hz E model 110 – 120 or 220 – 240 V AC adjustable, 50/60 Hz
12 W
$355 \times 93 \times 310 \text{ mm (w/h/d)}$ (14 × 3 ³ / ₄ × 12 ¹ / ₄ inches)
3.5 kg (7 lbs 11 oz)

Supplied accessories

Audio cord	1 (2 phono plugs – 2 phono plugs)	
Remote commander	1	
Sony SUM-3 (NS) batteries	2	

- Continued on next page -





Remote commander (RM-D270)

Remote control system	Infrared control
Power requirements	3 V DC with two R6 (size AA) batteries
Dimensions	Approx. $67 \times 20 \times 175 \text{ mm (w/h/d)}$ $(2^{3}/_{4} \times {}^{13}/_{16} \times 7 \text{ inches)}$
Weight	Approx. 135 g (4 oz) Including batteries

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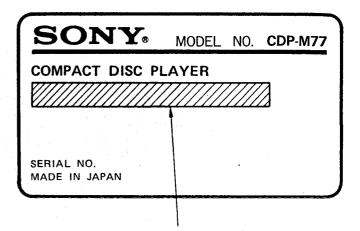
Secti	ion <u>Title</u>	Page
	ificationsel Identification	
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SAFETY-RELATED COMPONENT WARNING!!

COMPONENTS IDENTIFIED BY MARK A OR DOTTED LINE WITH MARK A ON THE SCHEMATIC DIAGRAMS AND IN THE PARTS LIST ARE CRITICAL TO SAFE OPERATION. REPLACE THESE COMPONENTS WITH SONY PARTS WHOSE PART NUMBERS APPEAR AS SHOWN IN THIS MANUAL OR IN SUPPLEMENTS PUBLISHED BY SONY.

MODEL IDENTIFICATION

- Specification Labels -



AEP model: AC: 220 V \sim 50/60 Hz 12 W UK model: AC: 240 V \sim 50/60 Hz 12 W

E model: AC: 110-120, 220-240 V \sim 50/60 Hz 12 W

SERVICING NOTES

PROTECTION OF EYES FROM LASER BEAM DURING SERVICING

This set employs a laser. Therefore, be sure to follow carefully the instructions below when servicing.

CAUTION

Use of controls or adjustments or performance of procedures other than those specified herein may result in hazardous radiation exposure.

- 1. Laser Diode Properties
 - Material: GaAlAsWavelength: 780 nm
 - Emission Duration: continuous
 Laser Output: max. 44.6 μW*
 - * This output is the value measured at a distance of about 200 mm from the objective lens surface on the Optical Pick-up Block.
- During service, do not take the Optical Pick-up Block apart, and do not adjust the APC circuit.
 If there is a breakdown in the APC circuit (including laser diode), replace the entire Optiocal Pick-up Block (including APC borad).

BESKYTTELSE AF ØJNE MOD LASERSTRÅLING UNDER SERVICE

I dette apparat anvendes laserlys. Derfor skal nedenstående instruktioner nøje følges under service.

Følg iøvrigt instruktionerne i servicemanualen.

ADVARSEL!!

Under service må øjnene ikke komme nær objektiv-linsen på den optiske pick-up enhed. I tilfælde af at det er nødvendigt at kontrollere udsendelsen af laserlys, skal det ske i en afstand af mere end 25 cm fra den optiske pick-up. 1. Laser-didoe data

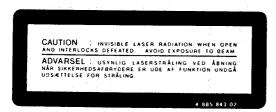
Materiale: GaAlAs
Bølgelængde: 780 nm
Udstråling: Kontinuerlig
Laseroutput: Max. 0,4 mW*

- * Målt i 1,6 mm afstand fra overfladen af objektivlinsen på den optiske pick-up enhed.
- Klassifikation: Klasse IIIb.
- Adskil aldrig den optiske pick-up enhed under service, og juster ikke APC kredsløbet (Automatic Power Control). Hvis APC kredsløbet (incl. laserdioden) bryder ned, skal hele den optiske pick-up enhed (incl. APC printkortet) udskiftes.

LASER ADVARSEL MÆRKNING

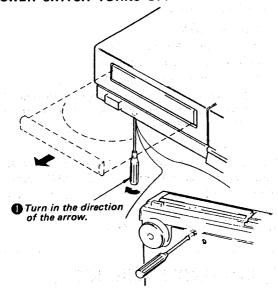
Følgende mærkning findes indvendig i apparatet:

1. Advarsel Mærkning



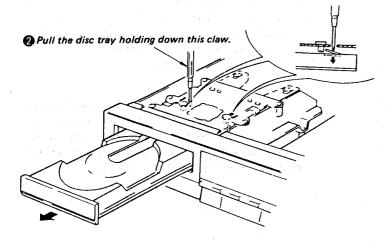
VAROITUS: Laite sisältää, laserdiodin, joka lähettää (näkymätöntä) silmille vaarallista lasersateilyä.

HOW TO OPEN THE DISC TRAY WHEN POWER SWITCH TURNS OFF



Caution: When you work, keep the set horizontal.

DISC TRAY REMOVAL



NOTES ON HANDLING THE OPTICAL PICK-UP BLOCK OR BASE UNIT

The laser diode in the optical pick-up block may suffer electrostatic breakdown because of the potential difference generated by the charged electrostatic load, etc. on clothing and the human body.

During repair, pay attention to electrostatic breakdown and also use the procedure in the printed matter which is included in the repair parts.

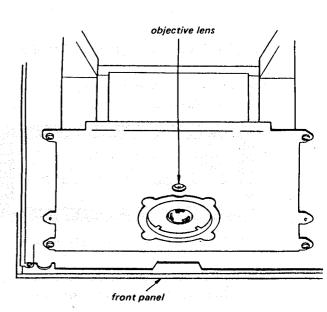
The flexible board is easily damaged and should be handled with care.

NOTES ON LASER DIODE EMISSION CHECK

The laser beam on this model is concentrated so as to be focused on the disc reflective surface by the objective lens in the optical pick-up block. Therefore, when checking the laser diode emission, observe from more than 30 cm away from the objective lens.

LASER DIODE AND FOCUS SERCH OPERATION CHECK

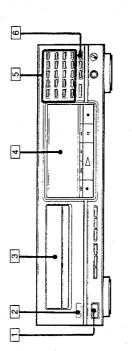
- 1. Make POWER switch on with no disc inserted and disc table closed.
- 2. Confirm that the following operation is performed while observing the objecting lens.



- 1) Confirm that laser beam is spread.
- 2) Up and down motion of the objective lens. (3 times)

-ocation of Controls

Front Panel



कि प्रांच कि कि पंजा कि प्रांच कि 13

Numeric buttons

CLEAR (program clear) button HEADPHONE LEVEL control CHECK (program check) 1 POWER switch
2 Remote sensor
3 Disc tray
4 Display window
5 Numeric buttons
6 CLEAR (program of the ADPHONE LE)
7 HEADPHONE LE)
8 HEADPHONE [add]
10 > 20 (over 20) butt
11 EDDIT / TME FADE [13] 4 (stop) button

HEADPHONE jack

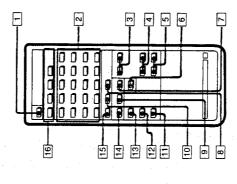
> 20 (over 20) button FADER (FADE IN/FADE OUT) button EDIT/TIME FADE button

[ii] II (pause) button
[ii] ←♠▶► (manual search) buttons
[iii] ► (paly) button
[iiii] ←♠▶► (AMS¹) buttons
[iiii] ♠ (PPEN/CLOSE) button
[iiii] PLAY MODE buttons (図) REPEAT button (図) AUTO SPACE (auto space) button (図) TIME button SHUFFLE button CONTINUE/SINGLE button PROGRAM button

AMS is an abbreviation of Automatic Music Sensor.

Remote Commander

RM-D270



SECTION 2 GENERAL

≜ (open/close) button
 Numeric buttons

(3) FA P PLAMS buttons
(4) AP (manual search) buttons
(5) AAP (manual search) buttons
(5) AAP P (manual search) buttons
(6) FADEH (FADE IN/FADE OUT) button
(7) TIME button
(8) A -- B repeat button
(10) CHECK button
(11) (11) (12) PLANTREPEAT (14) Putton
(12) PLANTREPEAT (14) Putton
(13) PLANTREPEAT (14) PLANTREPEAT (15) PLANTREPEAT (15) PLANTREPEAT (16) PLANTRE

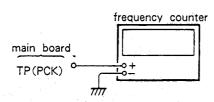
PGM (program) button SHUFFLE button CONTINUE button SINGLE button

SECTION 3 ELECTRICAL ADJUSTMENTS

- 1. Perform adjustments in the order given.
- 2. Use YEDS-18 disc (3-702-101-01) unless otherwise indicated.
- 3. Use the oscilloscope with more than $10M\Omega$ impedance.

RF PLL Frequency Adjustment

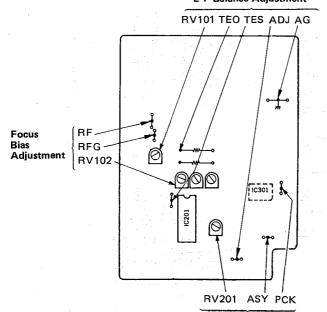
Procedure:



- Connect test point TP (ASY) to ground with jumper wire,
- 2. Turn POWER switch on.
- 3. Connect the frequency counter to test point TP (PCK).
- 4. Adjust RV201 so that the reading on frequency counter is 4,3218MHz±30kHz.
- 5. Remove lead wire connecting TP (ASY) and ground.
- 6. Put disc (YEDS-18) in and press ▷ button.
- 7. Confirm that the reading on frequency counter is 4,3218MHz.

Adjustment Location: main board

E-F Balance Adjustment

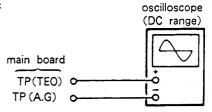


RF PLL Frequency Adjustment

E-F Balance Adjustment

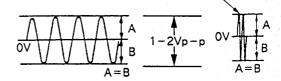
This adjustment should be made when replacing Optical Pick-up Block.

Procedure:



- 1. Connect test points TP (ADJ) and TP (TEI) to ground with jumper wires.
- Connect oscilloscope to test points TP (TEO) and TP (A, G).
- 3. Turn POWER switch on.
- 4. Put disc (YEDS-18) in and playback the 6th selection.
- 5. Adjust RV101 so that the oscilloscope waveform is symmetrical on the top and bottom in relation to 0V.

Note: Take sweep time as long as possible to obtain best waveform.

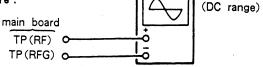


Focus Bias Adjustment

This adjustment should be made when replacing Optical Pick-up Block.

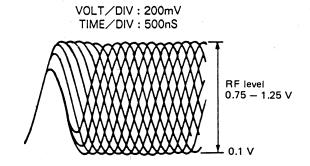
oscilloscope

Procedure:



- 1. Connect oscilloscope to test points TP(RF) and TP (RF G).
- 2. Turn POWER switch on.
- 3. Put disc (YEDS-18) in and playback the 6th selection.
- 4. Adjust RV102 for an optimum waveform eye pattern or so that the peak is maximum. Optimum eye pattern means that shape "\$\infty\$" can be clearly distinguished at the center of the waveform.

● RF Signal Reference Waveform (eye pattern)



When observing the eye pattern, set the oscilloscope for AC range and raise vertical sensitivity.

REFERENCE

Focus/Tracking Gain Adjustment

A frequency response analyzer is necessary in order to perform this adjustment exactly.

However, this gain has a margin, so even if it is slightly off, there is no problem. Therefore, do not perform this adjustment.

Focus/tracking gain determines the pick - up follow - up (vertical and horizontal) relative to mechanical noise and mechanical shock when the 2-axis device operate.

However, as these reciprocate, the adjustment is at the point where both are satisfied.

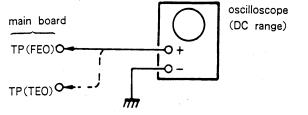
- When gain is raised, the noise when the 2-axis device operates increases.
- When gain is lowered, it is more susceptible to mechanical shock and skipping occurs more easily.
- When gain adjustment is off, the symptoms below appear.

Gain Symptoms	Focus	Tracking
 The time until music starts becomes longer for STOP → PLAY or automatic selection (M M buttons pressed. (Normally takes about 2 seconds.) 	low	low or high
● Music does not start and disc continues to rotate for STOP→▷PLAY or auto - matic selection (MI MI buttons pressed.)	-	low
Disc table opens shortly after STOP→▷ PLAY.	low or high	<u>-</u>
Sound is interrupted during PLAY. Or time counter display stops progressing.	-	low
● More poise during 2-axis device oper - ation.	high	high

The following is a simple adjustment method.
-Simple Adjustment-

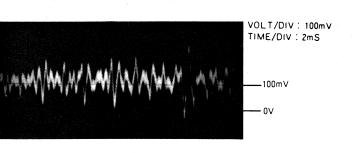
Note: Since exact adjustment cannot be performed, remember the positions of the controls before performing the adjustment. If the positions after the simple adjustment are only a little different, return the controls to the original position.

Procedure:

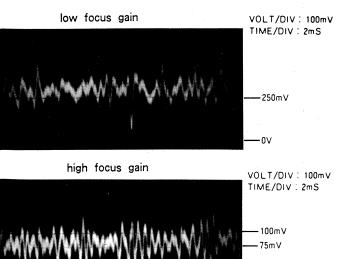


Keep the set horizontal.
 (If the set is not horizontal, this adjustment cannot be performed due to the gravity against the 2 axis device.)

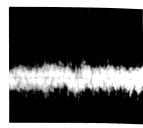
- 2. Insert disc (YEDS-18) playback the 6th selection.
- 3. Connect oscilloscope to main board TP(FEO).
- 4. Adjust RV103 so that the waveform is as shown in the figure below. (focus gain adjustment)



 Incorrent Examples (DC level changes more than on adjusted waveform)



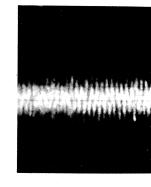
- 5. Connect oscilloscope 1
- 6. Adjust RV104 so that the figure below. (tra



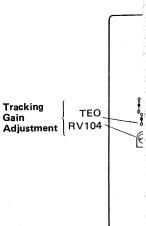
● Incorrect Examples (



high tracking gain
(higher fundamental wave

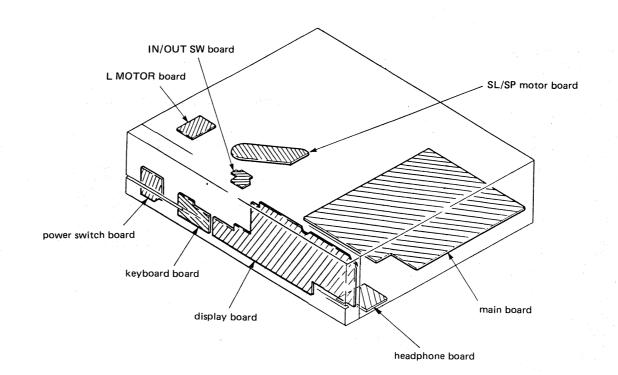


Adjustment Location: ma



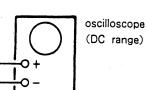
SECTION 4 DIAGRAMS

4-1. CIRCUIT BOARDS LOCATION

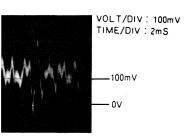


le adjustment method.

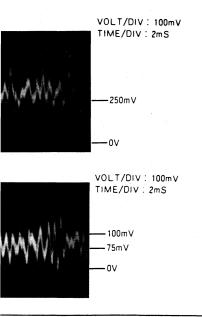
nent cannot be performed. ions of the controls before ment. If the positions after the only a little different, return original position.



tal, this adjustment cannot be\ wity against the 2 axis device. playback the 6th selection. main board TP(FEO). he waveform is as shown in gain adjustment)



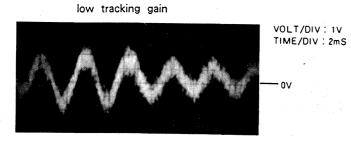
level changes more than on



- 5. Connect oscilloscope to main board TP(TEO).
- 6. Adjust RV104 so that the waveform is as shown in the figure below. (tracking gain adjustment)

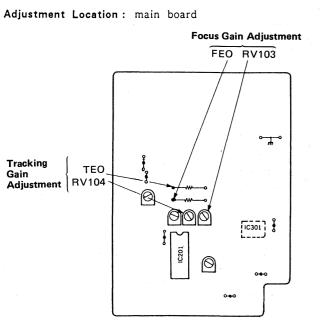


• Incorrect Examples (fundamental wave appears)



high tracking gain (higher fundamental wave than for low gain)





4-2. PRINTED WIRING BOARDS

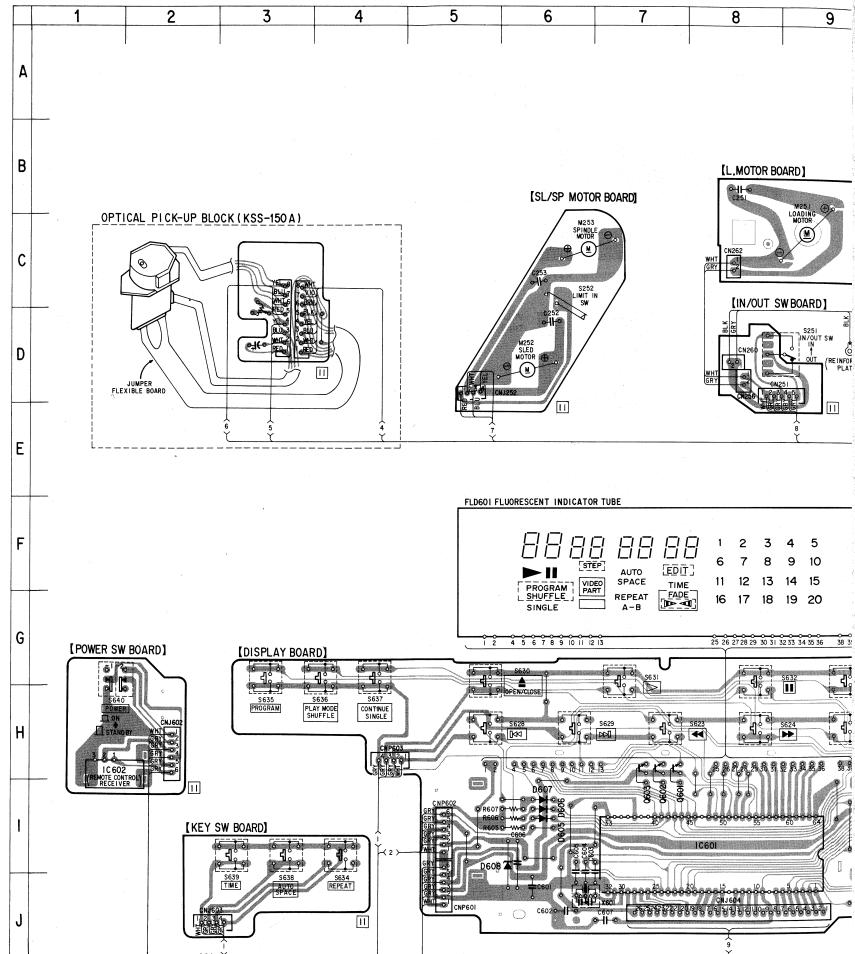
• See page 22 for Semiconductor Lead Layouts.

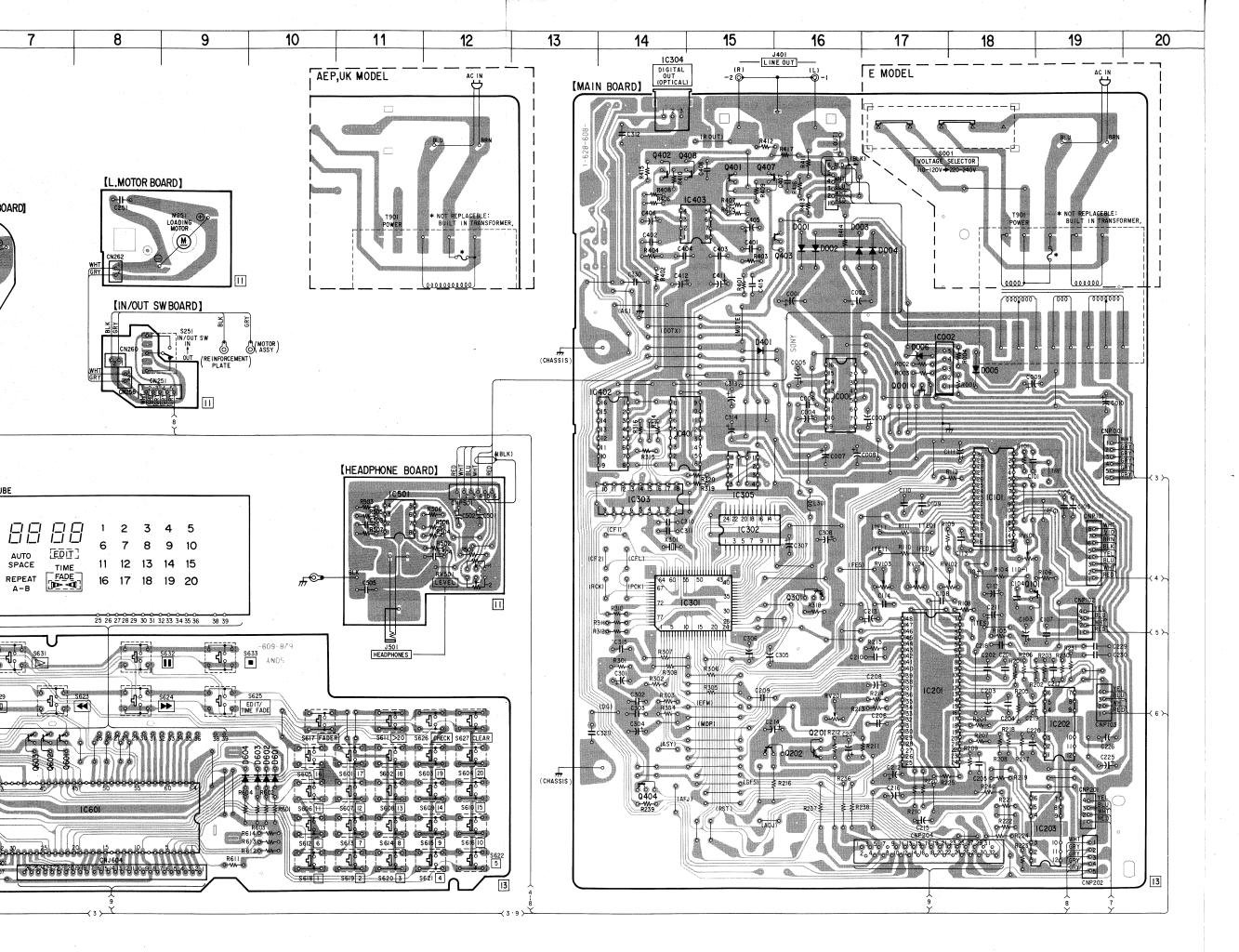
Note:

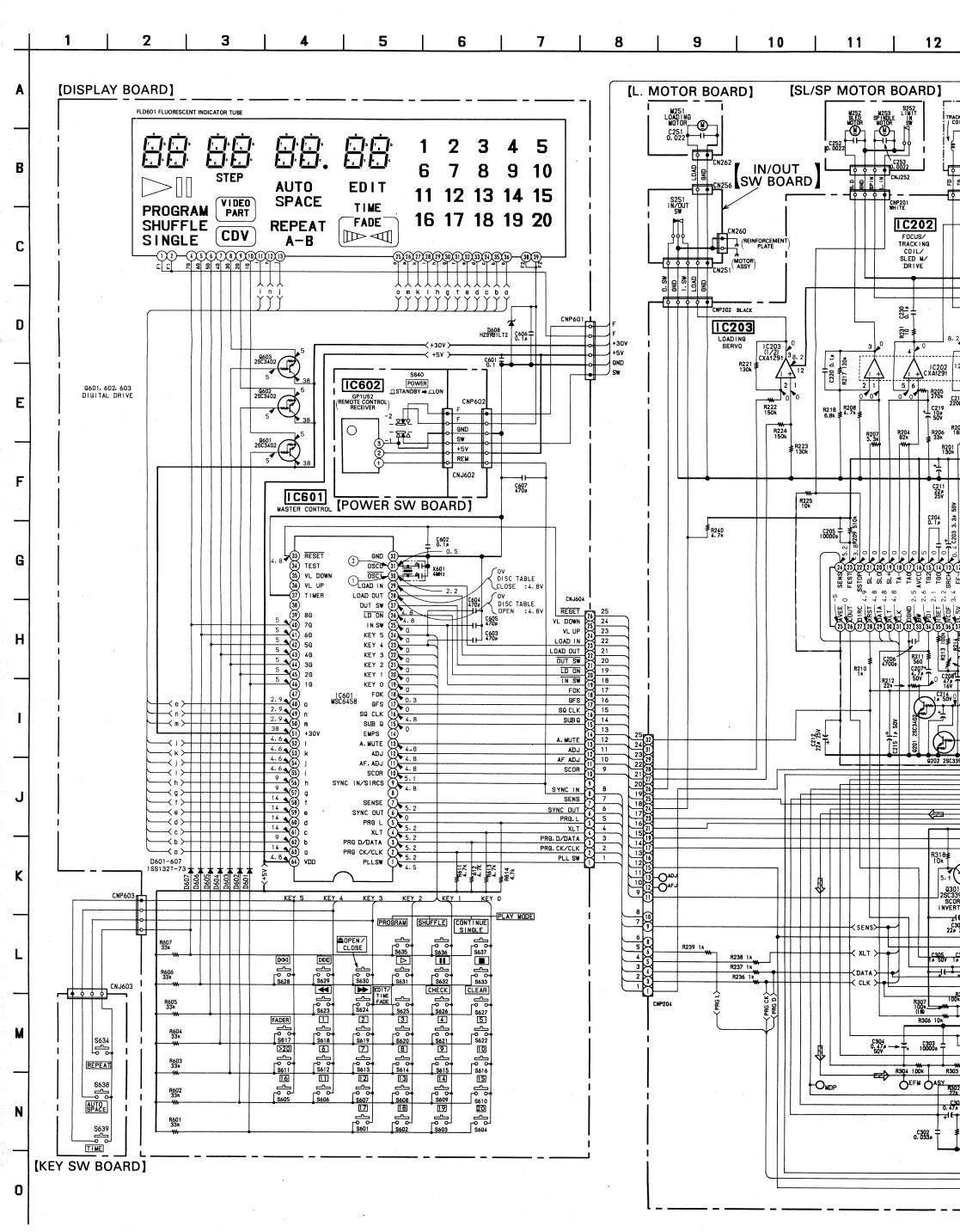
- o---: parts extracted from the component side.
- • : parts extracted from the conductor side.
- parts mounted on the conductor side.

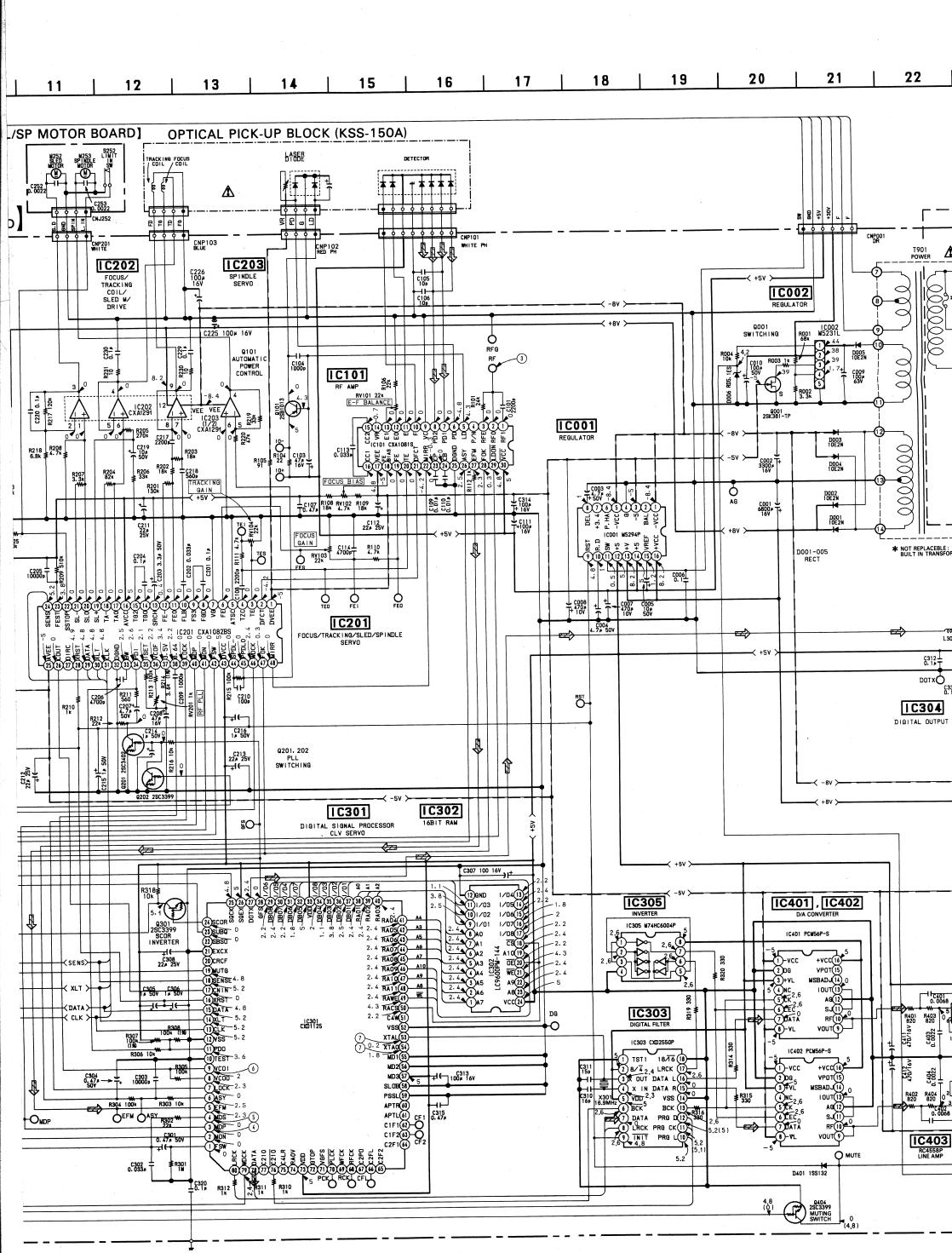
Semiconductor Location

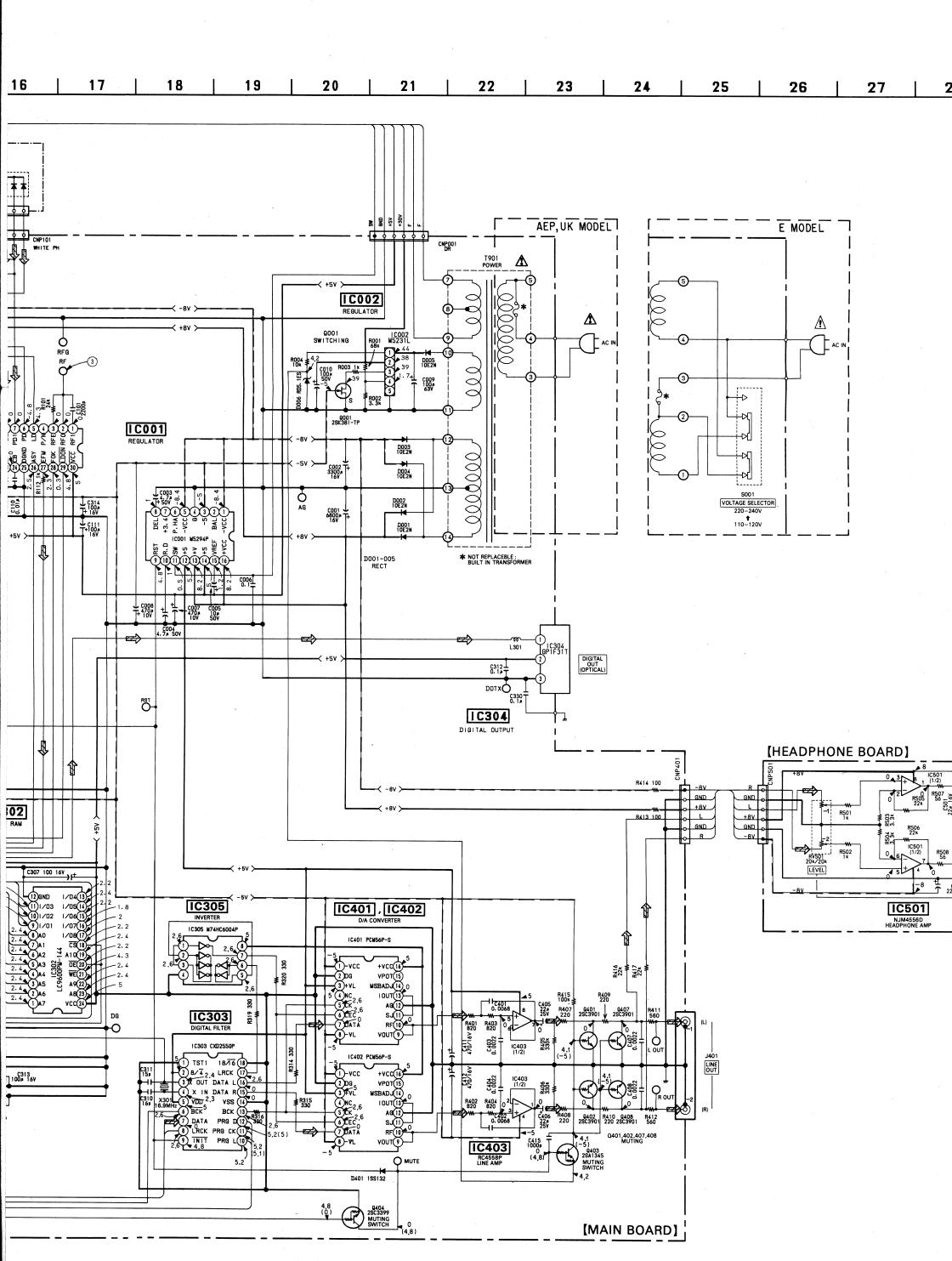
Location			
Ref. No.	Location		
D001 D002 D003 D004 D005 D006 D401 D601 D602 D603 D604 D605 D606 D607 D608	C-16 C-17 C-17 C-17 D-18 D-17 D-15 I-10 I-10 I-9 I-6 I-6 I-6		
IC001 IC002 IC101 IC201 IC202 IC203 IC301 IC302 IC303 IC304 IC305 IC401 IC402 IC402 IC403 IC501 IC601 IC602	D-16 D-17 F-18 H-17 H-19 G-15 F-15 F-14 A-14 F-15 E-14 B-15 F-11 I-8 H-1		
Q001 Q101 Q201 Q202 Q301 Q401 Q402 Q403 Q404 Q407 Q408 Q601 Q602 Q603	D-17 G-19 I-16 I-16 G-15 B-14 C-16 I-14 B-15 B-15 H-7 H-7		



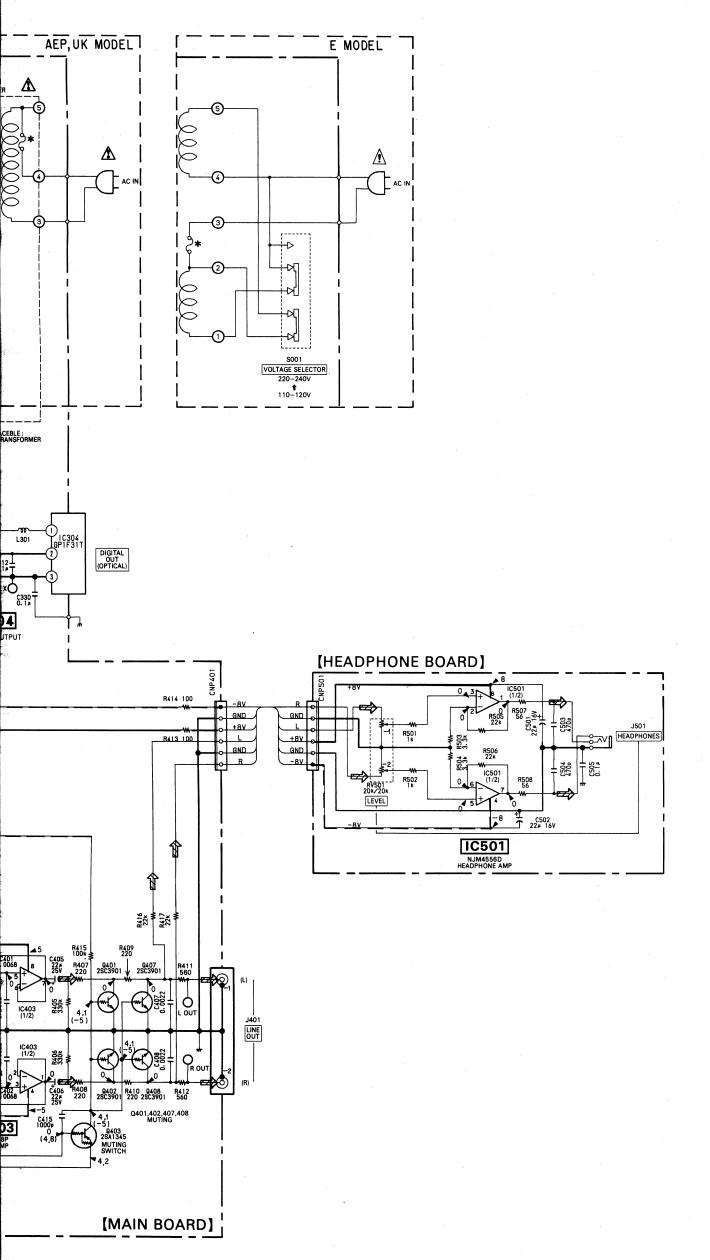








23 24 25 26 **27** 28 **29**



Note:

- All capacitors are in μF unless otherwise noted. pF: $\mu \mu F$ 50WV or less are not indicated except for electrolytics and tantalums.
- \bullet All resistors are in Ω and $^{1}\!/_{\!4}\,W$ or less unless otherwise specified.
- % : indicates tolerance.
 - \triangle : internal component.
- ---: B- Line
- : adjustment for repair.
- Voltage and waveforms are dc with respect to ground under no-signal conditions.
 - no mark: STOP): PLAY
- Voltages are taken with a VOM (50 $k\Omega/V$).

Voltage variations may be noted due to normal production tolerances.

Waveforms are taken with a oscilloscope.

Voltage variations may be noted due to normal production tolerances.

Circled numbers refer to waveforms.

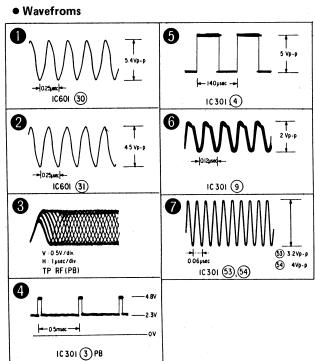
Signal path.

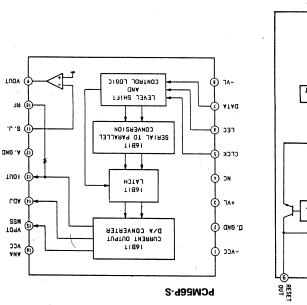
☞ : CD

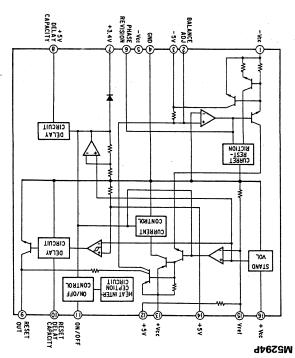
Switch

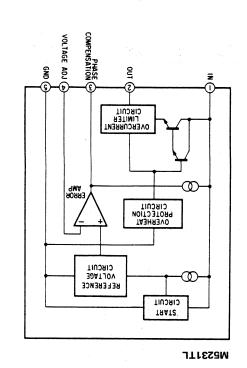
Ref. No	Switch	Position
S001	VOLTAGE SELECTOR(E)	110 - 120V
S251	IN/OUT	OUT
S252	LIMIT IN	OFF
S601	. 17	OFF.
S602	18	OFF
S603	19	OFF
S604	20	OFF
S605	16	OFF
S606	11	OFF
S607	12	OFF
S608	13	OFF
S609°	14	OFF
S610	15	OFF
S611	>20	OFF
S612	6	OFF
S613	7	OFF
S614	8 .	OFF
S615	9	OFF
S616	10	OFF
S617	FADER	OFF
S618	1	OFF
S619	2	OFF
S620	3	OFF
S621	4	OFF
S622	5	OFF
S623	. ←	OFF
S624	₩	OFF
S625	EDIT/TIME FADE	OFF
S626	CHECK	OFF
S627	CLEAR	OFF
S628	k⊲	OFF
S629	M	OFF
S630	▲ OPEN/CLOSE	OFF
S631	>	OFF
S632	li ii	OFF
S633	•	OFF
S634	REPEAT	OFF
S635	PROGRAM	OFF
S636	SHUFFLE	OFF
S637	CONTINUE SINGLE	OFF
S638	AUTO SPACE	OFF
S639	TIME	OFF
S640	POWER	OFF

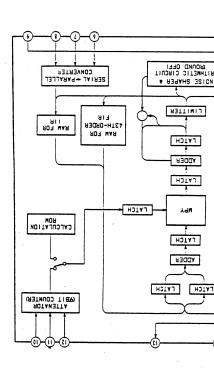
Note: The components identified by mark Λ or dotted line with mark \(\bar{\Lambda} \) are critical for safety. Replace only with part number specified.











SECTION 5 EXPLODED VIEWS

NOTE:

- The mechanical parts with no reference number in the exploded views are not
- The construction parts of an assembled part are indicated with a collation number in the remark column.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.

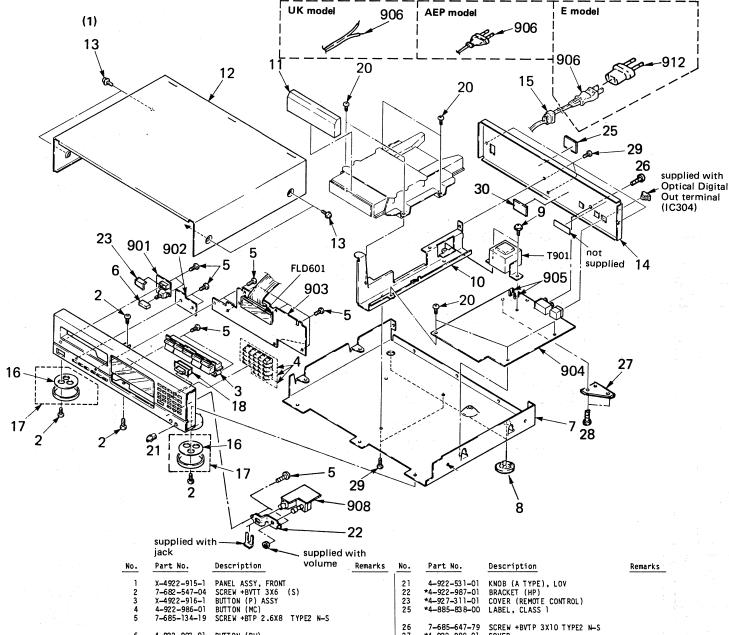
Due to standardization, parts with part number suffix -XX and -X may be different from the parts specified in the components used on the set.

Color Indication of Appearance Parts Example: (RED) ... KNOB, BALANCE (WHITE)

Cabinet's Color Parts Color

The components identified by mark or dotted line with mark are critical for safety.

Replace only with part number repetifies.



7-685-647-79 SCREW +BYTP 3X10 TYPE2 N-S *4-922-988-01 COVER 4-818-403-21 RIVET, NYLON 7-682-547-09 SCREW +BYTT 3X6 (S) 4-922-903-01 BUTTON (PW)
*4-921-903-51 CHASSIS
X-4922-001-1 FOOT ASSY
2-383-566-00 SCREW
*4-922-911-01 CHASSIS (R) 4-922-939-01 (UK)....CUSHION *1-628-611-11 PC BOARD, POMER SWITCH *1-628-610-11 PC BOARD, KEY BOARD *1-628-609-11 PC BOARD, DISPLAY 4-922-990-11 (AEP,UK)...PANEL (LOADING) 4-922-990-21 (E).......PANEL (LOADING) 11 4-919-376-02 CASE 3-704-366-01 SCREW (CASE) (M3X8) *A-4651-232-A (AEP,UK)...MOUNTED PCB, MAIN *A-4651-233-A (E).....MOUNTED PCB, MAIN *1-535-476-11 TERMINAL *4-922-981-41 (AEP)...PANEL, BACK *4-922-981-21 (UK)...PANEL, BACK 4-922-981-31 (E)....PANEL, BACK *3-703-244-00 (AEP,UK)...BUSHING (2104), CORD *3-703-571-12 (E)....BUSHING (S)(4516), CORD 908 *1-628-612-11 PC BOARD, HEADPHONE 912 <u>A</u>.1-526-565-00 (E)...AC PLUG ADAPTOR FLD601 1-519-475-11 INDICATOR TUBE, FLUORESCENT 4-921-906-01 FELT 4-921-918-11 PLATE, ORNAMENTAL 4-922-991-11 BUTTON (FD) 7-682-548-04 SCREW +BYTT 3X8 (S) T901 A.1-449-025-11 (AEP,UK)...TRANSFORMER, POWER T901 A.1-449-026-11 (E)......TRANSFORMER, POWER

(2) MD Section

102-

103~

11:

No. Part No. 101 *4-922-515-01 *4-929-066-01 7-685-546-11 102 103 A-4665-024-A 104 105 *4-918-679-04 106 4-917-519-01 4-917-514-01 107

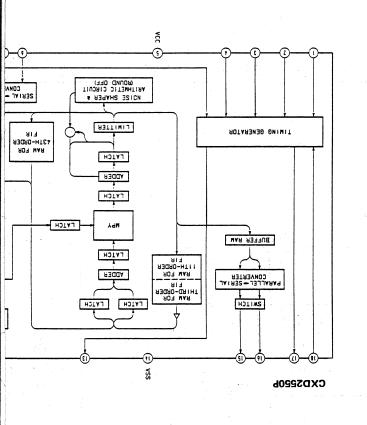
4-922-508-01 4-917-541-01 109 4-917-508-01 110 111 7-685-535-11 *4-922-529-01 4-917-515-01 112

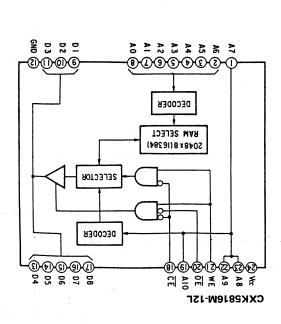
108

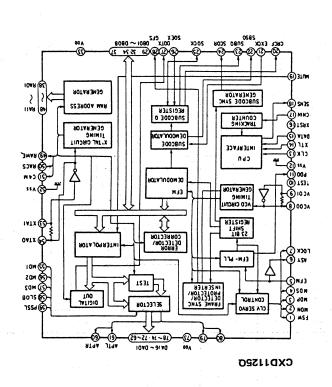
113 *4-922-514-01

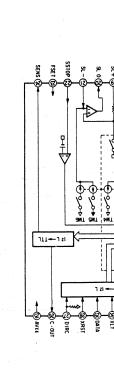
-18-

-19-

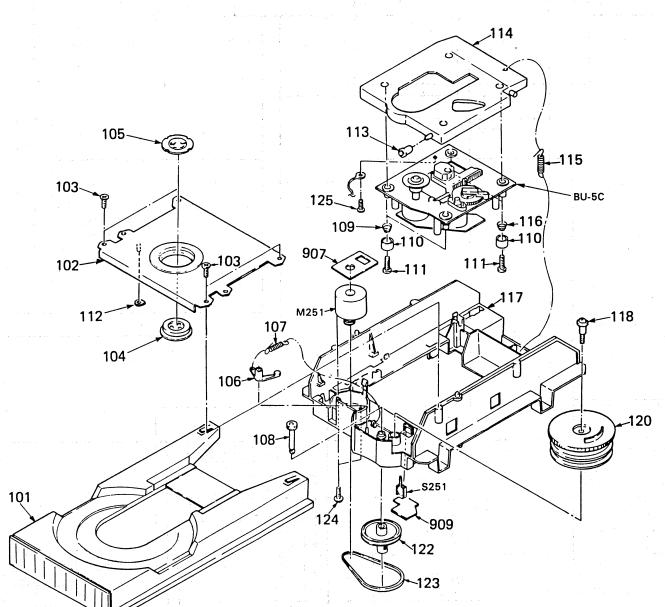








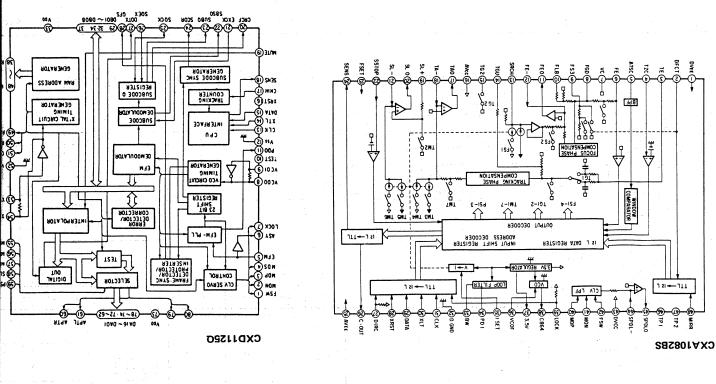


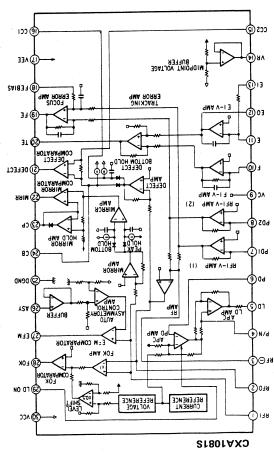


				"	123			
No.	Part No.	Description	Remarks	No.	Part No.	Description		Remarks
101 102 103 104 105	*4-922-515-01 *4-929-066-01 7-685-546-11 A-4665-024-A *4-918-679-04	TABLE, DISK REINFORCEMENT (MG) SCREW +BTP 3X8 TYPE2 N-S MAGNET ASSY PULLEY, PRESS		115 116 117 118 120	4-917-526-01 4-917-507-01 *4-922-516-01 7-685-152-19 4-922-511-01	SPRING, TENSION SPRING (H) CHASSIS (MD) SCREW, STEP GEAR (LOADING)		
106 107 108 109	4-917-519-01 4-917-514-01 4-922-508-01 4-917-541-01 4-917-508-01	LEVER, SET SPRING, TENSION GEAR (DRIVING) SPRING (B) HOLDER, SP		121 123 124 125	4-922-512-01 4-917-522-02 7-621-775-20 7-621-770-67	PULLEY BELT SCREW +B 2.6X5 SCREW +BVTT 2.6X6 ((\$)	
111 112 113 114	7-685-535-11 *4-922-529-01 4-917-515-01 *4-922-514-01	SCREW +BTP 2.6X10 TYPE2 N-S DAMPER ROLLER BRACKET (BU-5)		907 909 M251 S251	*1-626-838-11 *1-626-837-11 A-4608-346-A 1-571-300-11	PC BOARD, L.MOTOR PC BOARD, IN/OUT SW MOTOR ASSY, L SWITCH, ROTARY		

(3)	OPTICAL	PICK-UP	BLOCK	(BU-50	;)	
					911——	
	151 \$25	152	M253)	M253		
					910	

Part No.	Description			Remarks
4-917-565-01	SHAFT, SLED			
7-621-255-15	SCREW +P 2X3			
4-917-567-01 4-917-564-01	GEAR (M) GEAR (P), FLATNESS	£-		
	4-917-565-01 4-917-562-01 7-621-255-15 4-917-567-01	4-917-565-01 SHAFT, SLED 4-917-562-01 INSULATOR 7-621-255-15 SCREW +P 2X3 4-917-567-01 GEAR (M)	4-917-565-01 SHAFT, SLED 4-917-562-01 INSULATOR 7-621-255-15 SCREW +P 2X3 4-917-567-01 GEAR (M)	4-917-565-01 SHAFT, SLED 4-917-562-01 INSULATOR 7-621-255-15 SCREW +P 2X3 4-917-567-01 GEAR (M)





4-4' IC BLOCK DIAGRAMS

SE ELECTRIC

RESI

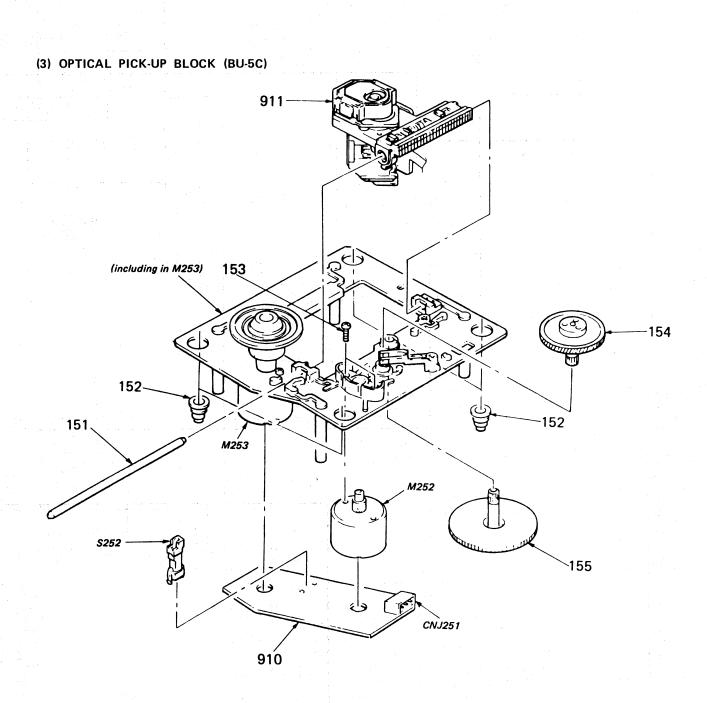
COIL

SEM

NOTE:

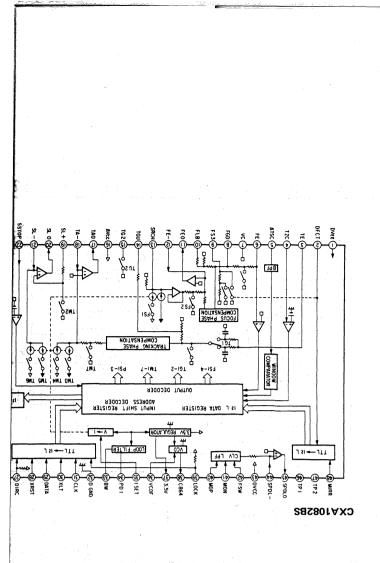
- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

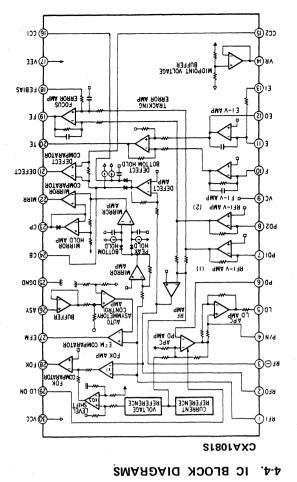
Ref.No.	Part No.	Description		
901 902 903	*1-628-611-11 *1-628-610-11 *1-628-609-11	PC BOARD, POW PC BOARD, KEY PC BOARD, DIS	BOARD	
904	*A-4651-232-A *A-4651-233-A	(AEP,UK)MC		
905	*1-535-476-11	TERMINAL		
Δ	1.1-551-188-XX 1.1-555-795-00 1.1-556-035-00	(E)CORD (AEP)CORD (UK)CORD	, POWER, EULO	O PLUG
907 908 909	*1-626-838-11 *1-628-612-11 *1-626-837-11	PC BOARD, L.M PC BOARD, HEA PC BOARD, IN,	ADPHONE	
911 🛭	1.1-624-322-11 1.8-848-062-01 1.1-526-565-00	PC BOARD, SL, DEVICE, OPTIO (E)AC PLUG	CS (KSS-150A))
C001	1-126-017-11	ELECT	6800MF	20%
C002	1-124-887-00	ELECT	3300MF	20%
C003	1-124-927-11	ELECT	4.7MF	20%
C004 C005 C006	1-124-927-11 1-123-875-11 1-164-159-11	ELECT ELECT CERAMIC	4.7MF 10MF 0.1MF	20% 20%
C007	1-124-472-11	ELECT	470MF	20%
C008	1-124-472-11	ELECT	470MF	20%
C009	1-124-572-11	ELECT	100MF	20%
C010	1-124-122-11	ELECT	100MF	20%
C101	1-161-375-00	CERAMIC	0.0022MF	30%
C103	1-124-477-11	ELECT	47MF	20%
C104	1-162-294-31	CERAMIC	0.001MF	10%
C105	1-162-199-31	CERAMIC	10PF	5%
C106	1-162-199-31	CERAMIC	10PF	5%
C107	1-136-173-00	FILM	0.47MF	5%
C108	1-161-375-00	CERAMIC	0.0022MF	30%
C109	1-136-153-00	FILM	0.01MF	5%
C110	1-136-153-00	FILM	0.01MF	5%
C111	1-126-101-11	ELECT	100MF	20%
C112	1-126-233-11	ELECT	22MF	20%
C113	1-136-159-00	FILM	0.033MF	5%
C114	1-161-377-00	CERAMIC	0.0047MF	30%
C201	1-136-165-00	FILM	0.1MF	5%
C2 02	1-136-159-00	FILM	0.033MF	5%
C2 03	1-123-382-00	ELECT	3.3MF	20%
C2 04	1-136-165-00	FILM	0.1MF	5%
C2 05	1-161-379-00	CERAMIC	0.01MF	20%
C2 06	1-161-377-00	CERAMIC	0.0047MF	30%
C2 07	1-124-927-11	ELECT	4.7MF	20%

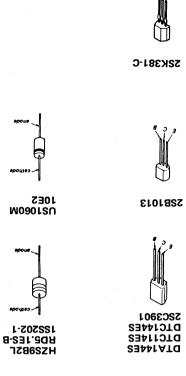


No.	Part No.	Description	Remarks	No. Part No.	Description	Remarks
151 152 153 154 155	4-917-567-01	INSULATOR SCREW +P 2X3		911 <u>A</u> .8-848-062-01 CNJ251*1-564-720-21 M252 X-4917-504-1 M253 X-4917-523-1	PC BOARD, SL/SP MOTOR DEVICE, OPTICS (KSS-150A) PIN, CONNECTOR (SMALL TYPE) 4P ASSY, MOTOR (SLED) ASSY, MOTOR (SPINDLE) SWITCH, LEAF (LIMIT IN)	
				Jan		

Note: The components identified by mark \(\underbrace{\hat{\Lambda}}\) or dotted line with mark \(\underbrace{\hat{\Lambda}}\) are critical for safety. Replace only with part number specified.







Semiconductor Lead Layouts

SECTION 6 ELECTRICAL PARTS LIST

NOTE:

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS: MF: μF, PF: μμF.

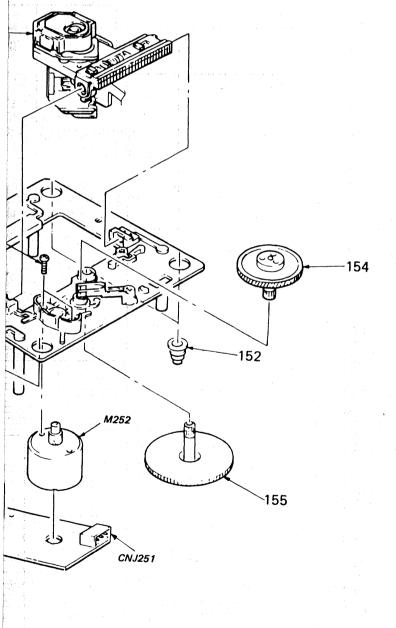
- RESISTORS All resistors are in ohms.F: nonflammable

COILS • MMH: mH, UH: μH SEMICONDUCTORS

In each case, U: μ , for example: UA:..: μ A..., UPA...: μ PA..., UPC...: μ PD...

The components identified by mark \(\underbrace{\Lambda} \) or dotted line with mark \(\underbrace{\Lambda} \) are critical for safety.

Replace only with part number specified.



Remarks	No. Part No.	Description	Remarks
	910 *1-624-322-1	1 PC BOARD, SL/SP MOTOR	
	911 A.8-848-062-0 CNJ251*1-564-720-2	1 DEVICE, OPTICS (KSS-150A)	
	CNJ251*1-564-720-2	1 PIN, CONNECTOR (SMALL TYPE) 4P	
	M252 X-4917-504-	1 ASSY, MOTOR (SLED)	
	M253 X-4917-523-	1 ASSY, MOTOR (SLED) 1 ASSY, MOTOR (SPINDLE) 1 SWITCH, LEAF (LIMIT IN)	
	S252 1-571-274-1	1 SWITCH, LEAF (LIMIT IN)	

Note: The components identified by mark \bigwedge or dotted line with mark \bigwedge are critical for safety. Replace only with part number specified.

Ref.No	. Part No.	Description				Ref.No	. Part No.	Description			
901 902 903	*1-628-611-11 *1-628-610-11 *1-628-609-11	PC BOARD, PC PC BOARD, KE PC BOARD, DI	Y BOARD SPLAY			C208 C209 C210 C211	1-162-294-31 1-162-282-31	CERAMIC CERAMIC	47MF 0.001MF 100PF 22MF	20% 10% 10% 20%	16V 50V 50V 25V
904	*A-4651-232-A *A-4651-233-A	(AEP,UK)N (E)N				C212			22MF	20%	25V
905	*1-535-476-11	TERMINAL				C213 C214			22MF 1MF	20% 20%	25V 50V
906	☆. 1-551-188-XX ☆. 1-555-795-00 ☆. 1-556-035-00	(E)CORE (AEP)CORE (UK)CORE	, POWER, EU	LO PLUG		C215 C216 C217	1-124-499-11	ELECT	1MF 1MF 0.0022MF	20% 20% 30%	50V 50V 16V
907 908 909	*1-626-838-11 *1-628-612-11 *1-626-837-11	PC BOARD, L. PC BOARD, HE PC BOARD, IN	ADPHONE			C218 C219 C220	1-123-875-11	ELECT	560PF 10MF 0.1MF	10% 20% 5%	50V 50V 50V
910 911 912	⚠.1-624-322-11 ⚠.8-848-062-01 ⚠.1-526-565-00	PC BOARD, SL DEVICE, OPTI (E)AC PLU	CS (KSS-150)	A)		C225 C226 C229	1-126-101-11 1-126-101-11 1-164-159-11	ELECT	100MF 100MF 0.1MF	20% 20%	16V 16V 50V
C001 C002 C003		ELECT ELECT ELECT	6800MF 3300MF 4.7MF	20% 20% 20%	16V 16V 50V	C230 C251 C252	1-164-159-11 1-136-157-00 1-130-475-00	FILM	0.1MF 0.022MF 0.0022MF	5% 5%	50V 50V 50V
C004 C005 C006	1-123-875-11	ELECT ELECT CERAMIC	4.7MF 10MF 0.1MF	20% 20%	50V 50V 50V	C2 53 C3 01 C3 02	1-130-475-00 1-124-902-00 1-136-159-00	ELECT	0.0022MF 0.47MF 0.033MF	5% 20% 5%	50V 50V 50V
C007 C008 C009	1-124-472-11	ELECT ELECT ELECT	470MF 470MF 100MF	20% 20% 20%	10V 10V 63V	C3 03 C3 04 C3 05	1-161-379-00 1-124-902-00 1-124-499-11	ELECT	0.01MF 0.47MF 1MF	20% 20% 20%	16V 50V 50V
C010 C101 C103	1-124-122-11 1-161-375-00 1-124-477-11	ELECT CERAMIC ELECT	100MF 0.0022MF 47MF	20% 30% 20%	50V 16V 16V	C3 06 C3 07 C3 08	1-124-499-11 1-126-101-11 1-126-233-11	ELECT	1MF 100MF 22MF	20% 20% 20%	50V 16V 25V
C104 C105 C106	1-162-199-31	CERAMIC CERAMIC CERAMIC	0.001MF 10PF 10PF	10% 5% 5%	50V 50V 50V	(310 (311 (312	1-162-204-31 1-162-203-31 1-164-159-11	CERAMIC	16PF 15PF 0.1MF	5% 5%	50 V 50 V 50 V
C107 C108 C109	1-161-375-00	FILM CERAMIC FILM	0.47MF 0.0022MF 0.01MF	5% 30% 5%	50V 16V 50V	C313 C314 C315	1-126-101-11 1-126-101-11 1-136-173-00	ELECT	100MF 100MF 0.47MF	20% 20% 5%	16V 16V 50V
C110 C111 C112	1-126-101-11	FILM ELECT ELECT	0.01MF 100MF 22MF	5% 20% 20%	50V 16V 25V	C320 C330 C401	1-164-159-11 1-164-159-11 1-130-481-00	CERAMIC	0.1MF 0.1MF 0.0068MF	5%	50V 50V 50V
C113 C114 C201	1-136-159-00 1-161-377-00 1-136-165-00	FILM CERAMIC FILM	0.033MF 0.0047MF 0.1MF	5% 30% 5%	50V 16V 50V	C402 C403 C404	1-130-481-00 1-130-475-00 1-130-475-00	MYLAR	0.0068MF 0.0022MF 0.0022MF	5% 5% 5%	50V 50V 50V
C2 02 C2 03 C2 04	1-136-159-00 1-123-382-00 1-136-165-00	FILM ELECT FILM	0.033MF 3.3MF 0.1MF	5% 20% 5%	50V 50V 50V	C405 C406 C407	1-126-233-11 1-126-233-11 1-130-475-00	ELECT ELECT MYLAR	22MF 22MF 0.0022MF	20% 20% 5%	25V 25V 50V
C2 05 C2 06 C2 07		CERAMIC CERAMIC ELECT	0.01MF 0.0047MF 4.7MF	20% 30% 20%	16V 16V 50V	C408 C411 C412	1-130-475-00 1-126-103-11 1-126-103-11	MYLAR ELECT ELECT	0.0022MF 470MF 470MF	5% 20% 20%	50V 16V 16V

Ref.No.	Part No.	Description		Ref.No.	Part No.	Description	<u>. </u>		**	Ref.No.	Part No.	Description	n		Ref.No.	Part No.	Description	_		٠
C415 C501 C502	1-162-294-31 1-124-234-00 1-124-234-00	ELECT 22MF ELECT 22MF	10% 50V 20% 16V 20% 16V	IC2 03 IC3 01	8-752-035-28 8-752-035-28 8-752-328-62 8-752-323-64	IC CXA-1291 IC CXD11250))			R112 R201 R202	1-249-417-11 1-247-882-11 1-249-432-11	CARBON	1K 130K 18K	5% 1/4W	R315 R316 R318	1-249-411-11 1-249-411-11 1-249-429-11	CARBON	330 330 10K	5%	1/4W 1/4W 1/4W
C503 C504 C505	1-162-290-31 1-162-290-31 1-164-159-11	CERAMIC 470PF CERAMIC 0.1MF	10% 50V 10% 50V 50V	IC3 04	8-752-328-72 8-759-977-71 8-759-605-44	IC GP1F31T	(OPTICAL DIGI			R2 03 R2 04 R2 05	1-249-432-11 1-249-440-11 1-247-889-00	CARBON CARBON	18K 82K 270K	5% 1/4W	R319 R320 R401	1-249-411-11 1-249-411-11 1-249-416-11	CARBON		5%	1/4W 1/4W 1/4W
C601 C602 C603	1-164-159-11 1-164-159-11 1-162-290-31	CERAMIC 0.1MF CERAMIC 470PF	50V 50V 10% 50V	IC402	8-759-937-95 8-759-937-95 8-759-945-58	IC PCM56P-S				R206 R207 R208	1-249-435-11 1-249-423-11 1-249-425-11	CARBON CARBON	33K 3.3K 4.7K	5% 1/4W	R402 R403 R404	1-249-416-11 1-249-416-11 1-249-416-11	CARBON			1/4W 1/4W 1/4W
C604 C605 C606 C607	1-162-290-31 1-162-290-31 1-164-159-11 1-162-290-31	CERAMIC 470PF CERAMIC 0.1MF	10% 50V 10% 50V 50V 10% 50V	10601	8-759-745-56 8-759-980-34 8-749-920-03	IC MSC6458-)			R209 R210 R211	1-247-896-11 1-249-417-11 1-249-414-11	CARBON	510K 1K 560	5% 1/4W	R405 R406 R407	1-247-891-00 1-247-891-00 1-249-409-11	CARBON	330K 330K 220	5%	1/4W 1/4W 1/4W
		PIN, CONNECTOR 2P PIN, CONNECTOR (SMALL TYP	E) 2P	J401 J501	1-566-921-11 1-507-796-71	JACK, PIN 2	P (LINE OUT L TYPE (HEADPH			R212 R213 R214	1-249-433-11 1-249-441-11 1-215-434-00	CARBON	22K 100K 3.6K	5% 1/4W	R408 R409 R410	1-249-409-11 1-249-409-11 1-249-409-11	CARBON		5%	1/4W 1/4W 1/4W
CNPOO	1*1-564-340-00	JUMPER, FILM (WITH TERMIN PIN, CONNECTOR 6P PIN, CONNECTOR (SMALL TYP		L301 M251 M252	*1-410-858-11 A-4608-346-A X-4917-504-1	MOTOR ASSY.	, L			R215 R216 R217	1-249-441-11 1-249-429-11 1-247-881-00	CARBON	100K 10K 120K	5% 1/4W	R411 R412 R413	1-249-414-11 1-249-414-11 1-249-405-11	CARBON	560		1/4W 1/4W 1/4W
CNP10	3*1-564-706-31	PIN, CONNECTOR (SMALL TYP PIN, CONNECTOR (SMALL TYP PIN, CONNECTOR (SMALL TYP	E) 4P	M2 53 0001 0101	X-4917-523-1 8-729-600-94 8-729-801-43	MOTOR ASSY TRANSISTOR 2	(SPINDLE) 2SK381-C			R218 R219 R220	1-249-427-11 1-249-435-11 1-249-437-11	CARBON	6.8K 33K 47K	5% 1/4W	R414 R415 R416	1-249-405-11 1-249-441-11 1-249-433-11	CARBON	100 100K 22K	5%	1/4W 1/4W 1/4W
CNP20 CNP20	2*1-564-339-61 4 1-566-908-11	PIN, CONNECTOR 5P SOCKET, CONNECTOR 32P PIN, CONNECTOR (SMALL TYP		0201 0202 0301	8-729-900-80 8-729-900-89 8-729-900-89	TRANSISTOR I	DTC114ES DTC144ES			R221 R222 R223	1-247-882-11 1-247-883-00 1-247-882-11	CARBON	130K 150K 130K	% 1/4W	R417 R501 R502	1-249-433-11 1-249-417-11 1-249-417-11	CARBON		5%	1/4W 1/4W 1/4W
		PIN, CONNECTOR (SMALL TYPE DIODE 10E2		0401 0402 0403	8-729-806-26 8-729-806-26	TRANSISTOR 2	2SC3901 2SC3901			R224 R225 R230	1-247-883-00 1-249-429-11 1-249-393-11			% 1/4W % 1/4W % 1/4W	R503 R504 R505	1-249-423-11 1-249-423-11 1-249-433-11	CARBON	3.3K 3.3K 22K	5%	1/4W 1/4W 1/4W
D002 D003 D004 D005	8-719-200-02 8-719-200-02 8-719-200-02	DIODE 10E2 DIODE 10E2		Q404 Q407	8-729-900-65 8-729-900-89 8-729-806-27	TRANSISTOR 1	DTC144ES 2SC3901			R231 R236 R237	1-249-393-11 1-249-417-11 1-249-417-11	CARBON	1K !	% 1/4W % 1/4W % 1/4W	R506 R507 R508	1-249-433-11 1-249-402-11 1-249-402-11	CARBON		5%	1/4W/ 1/4W 1/4W
D006	8-719-109-89 8-719-107-94	DIODE RD5.1ES-B2 DIODE 1SS202-1		0408 0601 0602	8-729-806-26 8-729-900-80 8-729-900-80	TRANSISTOR I	DT C114ES DT C114ES			R238 R239 R240	1-249-417-11 1-249-417-11 1-249-425-11	CARBON		% 1/4W % 1/4W % 1/4W	R601 R602 R603	1-249-435-11 1-249-435-11 1-249-435-11	CARBON		5%	1/4W 1/4W 1/4W
D601 D602 D603	8-719-000-26 8-719-000-26	DIODE US1060M DIODE US1060M		Q603 R001 R002	8-729-900-80 1-249-439-11 1-249-423-11	CARBON CARBON	68K 5% 3.3K 5%	1/4W 1/4W		R3 01 R3 02 R3 03		CARBON CARBON CARBON	1M 9 22K 9 10K 9		R604 R605 R606	1-249-435-11 1-249-435-11 1-249-435-11	CARBON	33K 33K 33K	5%	1/4W 1/4W 1/4W
D604 D605 D606	8-719-000-26 8-719-000-26	DIODE US1060M DIODE US1060M DIODE US1060M		R003 R004 R101	1-249-417-11 1-249-429-11 1-247-864-11	CARBON CARBON	1K 5% 10K 5% 24K 5%	1/4W 1/4W 1/4W		R3 04 R3 05 R3 06	1-249-441-11 1-249-441-11 1-249-429-11	CARBON	100K 5 100K 5 10K 5	% 1/4W	R607 R611 R612	1-249-435-11 1-249-425-11 1-249-425-11	CARBON	33K 4.7K 4.7K	5%	1/4W 1/4W 1/4W
D607 D608 FLD60	8-719-933-57	DIODE US1060M DIODE HZS9B2L INDICATOR TUBE, FLUORESCEI	NT	R104 R105 R106	1-249-397-11 1-247-806-11 1-249-433-11	CARBON	22 5% 91 5% 22K 5%	1/4W 1/4W 1/4W		R3 07 R3 08 R3 10	1-215-469-00 1-215-469-00 1-249-417-11	METAL	100K 1 100K 1 1K 5		R613 R614	1-249-425-11 1-249-425-11		4.7K 4.7K		1/4W 1/4W
1C001 1C001	8-759-631-40 8-759-605-43	IC M5294P IC M5231TL IC CXA1081S		R108 R109 R110 R111	1-249-432-11 1-249-432-11 1-249-425-11 1-249-425-11	CARBON CARBON CARBON	18K 5% 18K 5% 4.7K 5% 4.7K 5%	1/4W 1/4W 1/4W 1/4W				CARBON CARBON CARBON	1K 5	% 1/4W % 1/4W	RV101 RV102 RV103 RV104	1-228-995-00 1-228-993-00 1-228-995-00 1-228-995-00	RES, ADJ, CA	RBON 4.71	(

Ref.No.	Part No.	Description
RV201 RV201 RV501	1-228-990-00 1-238-394-11 1-238-403-21	RES, ADJ, METAL GLAZE 1K RES, ADJ, METAL GLAZE 1K RES, VAR, CARBON 20K/20K (LEVEL)
S001 <u>A</u>	.1-571-722-11	(E)SWITCH, VOLTAGE SELECTOR (VOLTAGE SELECTOR)
\$251 \$252	1-571-300-11 1-571-274-11	SWITCH, ROTARY LEAF SWITCH (LIMIT IN)
S601 S602 S603	1-554-596-21 1-554-596-21 1-554-596-21	SWITCH, KEY BOARD (17) SWITCH, KEY BOARD (18) SWITCH, KEY BOARD (19)
\$604 \$605 \$606	1-554-596-21 1-554-596-21 1-554-596-21	SWITCH, KEY BOARD (20) SWITCH, KEY BOARD (16) SWITCH, KEY BOARD (11)
\$607 \$608 \$609	1-554-596-21 1-554-596-21 1-554-596-21	SWITCH, KEY BOARD (12) SWITCH, KEY BOARD (13) SWITCH, KEY BOARD (14)
S610 S611 S612	1-554-596-21 1-554-596-21 1-554-596-21	SWITCH, KEY BOARD (15) SWITCH, KEY BOARD (>20) SWITCH, KEY BOARD (6)
S613 S614 S615	1-554-596-21 1-554-596-21 1-554-596-21	SWITCH, KEY BOARD (7) SWITCH, KEY BOARD (8) SWITCH, KEY BOARD (9)
\$616 \$617 \$618	1-554-596-21 1-554-596-21 1-554-596-21	SWITCH, KEY BOARD (10) SWITCH, KEY BOARD (FADER) SWITCH, KEY BOARD (1)
S619 S620 S621	1-554-596-21 1-554-596-21 1-554-596-21	SWITCH, KEY BOARD (2) SWITCH, KEY BOARD (3) SWITCH, KEY BOARD (4)
S622 S623 S624	1-554-596-21 1-554-596-21 1-554-596-21	SWITCH, KEY BOARD (5) SWITCH, KEY BOARD (◀◀) SWITCH, KEY BOARD (▶▶)
S62 5 S62 6 S62 7	1-554-596-21 1-554-596-21 1-554-596-21	SWITCH, KEY BOARD (EDIT/TIME FADE) SWITCH, KEY BOARD (CHECK) SWITCH, KEY BOARD (CLEAR)
\$62.8 \$62.9 \$63.0	1-554-596-21 1-554-596-21 1-554-596-21	SWITCH, KEY BOARD (Id) SWITCH, KEY BOARD (Id) SWITCH, KEY BOARD (Id) SWITCH, KEY BOARD (Id)
\$631 \$632 \$633	1-554-596-21 1-554-596-21 1-554-596-21	SWITCH, KEY BOARD (▷) SWITCH, KEY BOARD (▮) SWITCH, KEY BOARD (▮)
\$63.4 \$63.5 \$63.6	1-554-596-21 1-554-596-21 1-554-596-21	SWITCH, KEY BOARD (REPEAT) SWITCH, KEY BOARD (PROGRAM) SWITCH, KEY BOARD (SHUFFLE)
\$63 7 \$63 8 \$63 9 \$640	1-554-596-21 1-554-596-21 1-554-596-21 1-571-305-11	SWITCH, KEY BOARD (CONTINUE/SINGLE) SWITCH, KEY BOARD (AUTO SPACE) SWITCH, KEY BOARD (TIME) SWITCH, PUSH (1 KEY)(POWER)

Ref.No.	Part No.	Description
	1-449-025-11 1-449-026-11	
X301 X601	1-567-926-11 1-577-082-11	
	ACCESSORY & PA	CKING-MATERIAL
		REMOTE COMMANDER (RM-D270) CORD, CONNECTION
3	-786-618-11	MANUAL, INSTRUCTION
3	-786-618-41	(ENGLISH, FRENCH, SPANISH, PORTUGUESE) (AEP)MANUAL, INSTRUCTION (GERMAN, DUTCH, SWEDISH, IT ALIAN)
-	-795-629-11 -922-998-01	(AEP)INSTRUCTION CUSHION
4	-927-316-11 -928-079-01 -632-650-75	INDIVIDUAL CARTON COVER, BATTERY (FOR REMOTE COMMANDER SHEET, PROTECTION (500MM)

Note: The components identified by mark A or dotted line with mark A are critical for safety.

Replace only with part number specified.

Troubleshooting Guide

Symptom	Cause	Remedy				
The disc tray does not close.	The disc is not placed correctly.	Place the disc correctly on the disc tray.				
Play does not start.	Dirty disc.	Clean the disc.				
	The disc is inserted upside down.	Insert the disc with the printed side up.				
	II is engaged.	Press ■ again to release it.				
	Moisture condensation.	Leave the player turned on for approximately one hour.				
Sound is not heard.	Loose connection.	Insert the plug firmly.				
	Connection is incorrect.	Check the connection.				
Play does not begin from the first selection.	The player is in the PROGRAM or SHUFFLE mode.	Press CONTINUE.				
Play begins only by turning on the power.	A disc is in the tray.	_				
The remote commander does not operate	The batteries are run down.	Replace both batteries.				
the unit.	The remote commander is not pointed at the remote sensor.	Point the remote commander at the sensor.				
	There is an obstacle between the remote commander and the unit.	Remove the obstacle.				
	The remote commander is too far from the unit.	Move closer.				
Any operation is not possible.	The internal control program may not run.	Turn off the power and turn it on again.				

Sony Corporation Audio Group

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S-V701/V701P

SERVICE MANUAL



AEP Model PS-V701 UK Model PS-V701P

PS-V701P is the STEREO TURNTABLE SYSTEM in LBT-V701CD/V701CDG

This photo is PS-V701.

SPECIFICATIONS

Tumtable

Platter Motor

30 cm (12 in.) DC servo motor Belt drive

Drive system Speed

331/3 rpm/45 rpm switchable

Wow and flutter

0.15% (WRMS)

Signal-to-noise ratio 65 dB (DIN-B) Automatic system Return, reject, lead in.

Tonearm

Dynamically balanced

Type Pivot-to stylus length

206 mm (77/s in.) Overall arm length 235 mm (93/s in.)

Cartridge

Moving magnet type Type Frequency response 20 Hz-20kHz

Stylus

ND-155G

General

Dimensions

355 × 100 × 340 mm (w/h/d) (14 × 4 × 131/2 inches)

Weight

Approx. 2.6 kg (4 lb 14 oz) Power requirements 220 V AC, 50/60 Hz

Power consumption 2W

Accessory supplied 45-rpm adaptor (1) Optional accessory

Replacement stylus ND-155G

Design and specifications subject to change without notice.

This appliance conforms with EEC Directives 76/889 and 82/499 regarding interference suppression.

Note for Cartridge

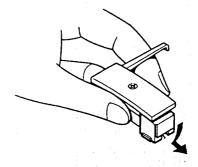
Be careful not to use any cartridge except for specified one (Part No.: 1-549-135-11) as balance weight of pick up arm assy is fixed.

REPLACING THE STYLUS

Replace the stylus after about 400 hours of use because using a worn stylus will damage records.

An ND-155G replacement stylus is available at your Sony dealer. Be sure to turn the amplifier off before proceeding with replacement.

- 1 While holding the cartridge, detach the stylus assembly as illustrated.
- 2 Insert the new stylus into the cartridge.

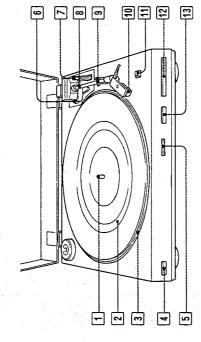






SECTION 1 GENERAL

1-1. LOCATION AND FUNCTION OF CONTROLS

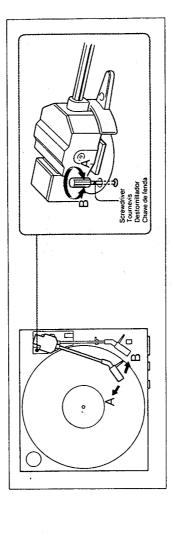


The tonearm drop-point during auto play has been factoryadjusted. If necessary, readjust it as follows.

1-2. TONEARM DROP-POINT ADJUSTMENT

To move the drop-point toward A, turn the adjustment screw clockwise with a screwdriver. To move the drop-point toward B, turn the adjustment screw counterclockwise with a screwdriver. If the tonearm does not return to the arm rest automatically after

play Turn the adjustment screw counterclockwise.



The power of this unit is fed from TA-V701. Because of this, connect the regulated DC power supply as illustrated right when this unit alone REPAIRING PRECAUTION (PS-V701 only) [To supply B+voltage]

regulated DC power supply

12V DC

3 core cord

[1] SIZE SELECTOR Allows selection of 17 cm (7 inch) or 30 cm (12 inch) records.

10 Cartridge

9 Arm rest

[12 < (start) button

13 **(stop)** button

3 Turntable platter

1 Center spindle

2 Rubber mat

4 POWER switch

5 SPEED select button Allows selection of 45 rpm or 33 rpm turntable speed.

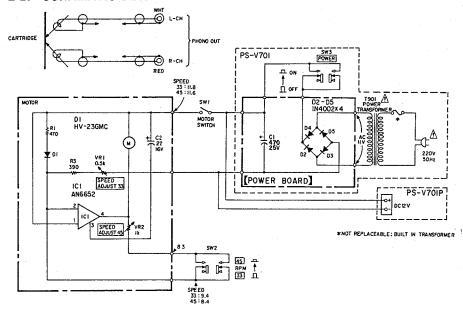
6 Drop point adjustment hole

7 Cueing lever (▼/▼)

8 Tonearm

SECTION 2 DIAGRAMS

2-1. SCHAMATIC DIAGRAM



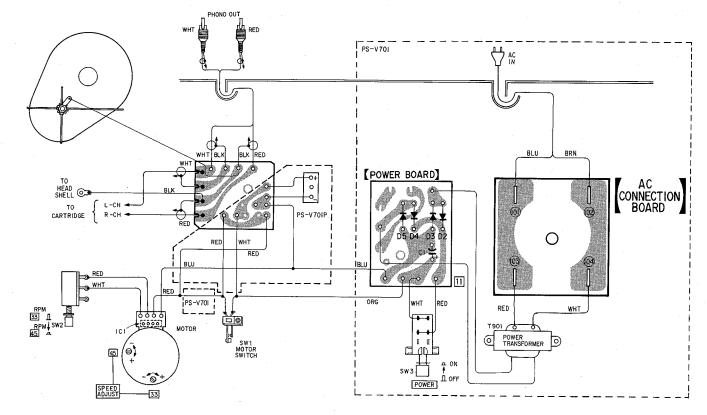
- All capacitors are in μF unless otherwise noted, pF: μμF 50WV or less are not indicated except for electrolytics and tantalums.
- All resistors are in Ω and 1/4W or less unless otherwise

Ref. No.	Switch	Position
SW1	MOTOR	OFF
SW2	SPEED	33
SW3	POWER	OFF
SW4	VOLTAGE SELECTOR	120V

The components identified by mark A or dotted line with mark A are critical for safety.

Replace only with part number specified.

2-2. WIRING DIAGRAM



Color code of sleeving over the end of the jacket.



• o---: parts extracted from the component side.

SECTION 3 EXPLODED VIEWS

- The mechanical parts with no reference number in the exploded views are not supplied.
- The construction parts of an assembled part are indicated with a collation num-ber in the remark column.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be antici-pated when ordering these items.

 Due to standardization, parts with part number suffix -XX and -X may be dif-ferent from the parts specified in the components used on the set.

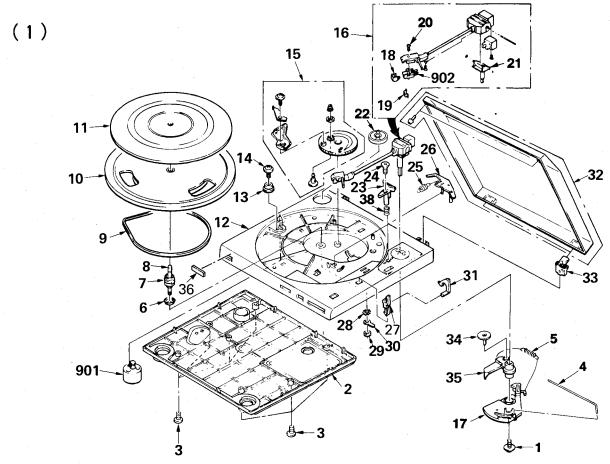
Color Indication of Appearance Parts Example: (RED) ... KNOB, BALANCE (WHITE)

Parts Color

Cabinet's Color

The components identified by mark \(\frac{\Lambda}{\Lambda} \) or dotted line with mark \(\frac{\Lambda}{\Lambda} \) are critical for safety.

Replace only with part number



No.	Part No.	Description	Remarks	No.	Part No.	<u>Description</u>	Remarks
1	4-896-509-01	SCREW (7-BID 3012 ZN3A 12D)		21	4-895-464-01	P.U. HINGE BRACKET	
2	*4-896-217-01	BOARD, BOTTOM		22	3-701-806-00	ADAPTOR, 45	
3	7-685-647-79	SCREW		23	4-896-258-01	PLATFORM, LIFT	
4	*4-896-264-01	ROD. TRIP		24	7-621-561-49	SCREW	
5	4-895-460-01	ADJUST SPRING		25	4-896-262-01	SPRING	
6	4-896-210-01	WASHER		26	4-896-505-01	LE VER, REJECT	
7	4-896-233-01	GEAR, T/T		27	4-895-417-01	P.U. REST	
8	4-896-232-01	SPINDLE		28	7-623-424-07		
9	4-880-655-01	BELT		29	7-684-024-04	NUT 50 ZNBA	
10	4-909-060-01	TURNTABLE		30	4-896-508-01	TERMINAL, GROUND	
11	4-895-478-01	INNER PLATE				· - · · · · · · · · · · · · · · · · · ·	
				31	4-895-418-01	P.U. TUBE HOOK	
12	4-896-506-01	(V701)CABINET		32	4-895-480-01	DUST COVER ASSY	
	4-896-511-01	(V701P)CABINET		33	4-895-410-01	HINGE ASSY	
	1 030 0.7 0.	7 1000		34	4-895-458-01	ADJUST CAM	
13	4-896-507-01	GROMMET (A)		35	4-896-223-01	LINK (A), RETURN	
14	7-685-646-79	SCREW					
15	X-4895-409-1	GEAR ASSY, CAM		36	4-925-161-21	EMBLEM (4-A), SONY	
16	X-4895-410-1	ARM ASSY		38	4-896-267-01	SPRING (A)	
				901	1-541-568-11	MOTOR	
17	4-896-224-01	LINK (B), RETURN		902	1-549-135-11	CARTRIDGE (ND-155G)	
18	1-549-132-11	BEAM :					
19	4-895-474-01	COVER, BEAM					
20	7-627-553-98			1			

SECTION 4 ELECTRICAL PARTS LIST

- Due to standardization, replacements in the parts list may be different from the parts specified in the diagrams or the components used on the set.
- Items marked "*" are not stocked since they are seldom required for routine service. Some delay should be anticipated when ordering these items.
- If there are two or more same circuits in a set such as a stereophonic machine, only typical circuit parts may be indicated and capacitors and resistors in other same circuits may be omitted.

CAPACITORS: MF: μF, PF: μμF.

RESISTORS

• All resistors are in ohms.
• F: nonflammable

COILS
• MMH: mH, UH: μH

SEMICONDUCTORS
In each case, U: µ, for example:
UA...: µA..., UPA...: µPA...,
UPC...: µPC, UPD...: µPD...

The components identified by mark A or dotted line with mark A are critical for safety.

Replace only with part number applications. specified.

Ref.No.	Part No.	Description
901 902 903	1-541-568-11 1-549-135-11 1-626-640-11	
905	1-555-750-00 1-555-116-11 1-557-109-21	(Y701)CORD, POWER, EULO PLUG CORD, CONNECTION (Y701P)CORD, CONNECTION (3 CORE)
C1	1-123-336-00	(V701)ELECT 470 20% 25V
D2 D3 D4 D5	8-719-200-02 8-719-200-02 8-719-200-02 8-719-200-02	(V701)DIODE 10E2
SW1 SW2 SW3	1-570-666-11 1-571-560-11 1-571-560-11	SWITCH, LEAF SWITCH, PUSH (1 KEY) (Y701)SWITCH, PUSH (1 KEY)
T901 ∠	1-449-291-11	(V701)TRANSFORMER, POWER

ACCESSORY & PACKING MATERIAL

3-750-347-11 (Y701)...MANUAL, INSTRUCTION (ENGLISH,FRENCH,SPANISH,PORTUGUESE) 3-750-347-41 (Y701)...MANUAL, INSTRUCTION (GERMAN,DUTCH,SWEDISH,ITALIAN)

3-701-806-00 ADAPTOR . 45 4-895-478-01 INNER PLATE *4-896-515-01 (V701)...INDIVIDUAL CARTON

(2)	71 - 76	
	70—6 SW1	905
	74	906
62 63		V701P only
61	69 73 51	
60 -5	67	
59	65 not supplied 86 77	
51 57	58	V701 only
56		904
51 51		30
55		T901
54 53 SW2	51 sw3	903
79-		80
V701 only 		

Note: The components identified by mark Λ or dotted line with mark Λ are critical for safety. Replace only with part number specified.
replace only with part number specified.

					Treplace only with part number specified.			
No.	Part No.	<u>Description</u>		Remarks	No.	Part No.	Description	Remarks
51	7-685-646-79	SCREW			71	4-303-605-00	PUSH NUT DIA.3	
52	4-896-261-01	WIRE, REJECT		1	72	4-896-218-01	ARM, CONTROL	
53	4-896-241-01	BUTTON, SPEED		ľ	73	4-896-247-01	SPRING	
54	4-896-240-01	BUTTON, STOP			74	4-896-51 0-01	SCREW (7-BID 304 ZN3A)	
55	4-896-242-01	BUTTON, START		.	76	7-685-104-19	SCREW	
				[77	4-896-256-01	SCREW ASSY	
56	4-896-255-01	SPRING						
57	4-896-216-01	WIRE, CONTROL ARM		ł	78	*4-928-260-01	(V701P)LABEL, MODEL	NUMBE R
58	4-896-215-01	LEVER, CONTROL				*4-928-259-01		
59	4-896-243-01	KNOB, SPEED				*4-928-259-11		
60	4-896-244-01	SPRING		İ				
_					79	4-895-896-01	(V701)BUTTON, POWER	
61	4-896-245-01	SCREW		ŀ	80	7-685-647-79	SCREW	
62	*4-896-213-01	WIRE, SELECTOR		1	903	1-626-640-11	(V701)PC BOARD, POWER	
63	4-896-214-01	SELECTOR, SIZE				<u></u> 1-555-750-00	(V701)CORD, POWER, EUL	O PLUG
64	4-895-435-01	FOOT			905	1-555-116-11	CORD, CONNECTION	
65	4-896-212-01	LEVER, CUE			906	1-557-109-21	(V701P)CORD. CONNECTIO	N (3 CORF)
66	4-896-251-01	SPRING (B)			CLE	1 570 666 11		
67	4-896-252-01	SHAFT. ARM LIFT		1	SWI	1-570-666-11	SWITCH, LEAF	
68	4-896-253-01	FORK, LIFT		: 1	SW2	1-571-560-11	SWITCH, PUSH (1 KEY)	
69	4-896-254-01	RING (DIA.3), E			SW3	1-571-560-11	(V701)SWITCH, PUSH (1	KEY)
70	4-896-248-01	CAM		İ	T003	A 1 440 001 11	(N701) TO ANCEODAGE BOIL	
,10	7-030-240-01	יות			1901	<u>M</u> .1-449-291-11	(V701)TRANSFORMER. POW	E R

Sony Corporation Audio Group

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